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A record of the creative efforts of 10 outstanding architects and 50 advanced architectural students from nine universities who participated in a 10-day conference devoted to finding solutions to problems in designing community colleges. The "Design Fete" was held in 1962 at Rice University under the sponsorship of the Educational Facilities Laboratory. A separate case study, with hypothetical problems, was given to each of the 10 teams consisting of one architect and five students. The resulting designs and suggested solutions to the problems are discussed in the text, accompanied by drawings, plans, and photographs of models.

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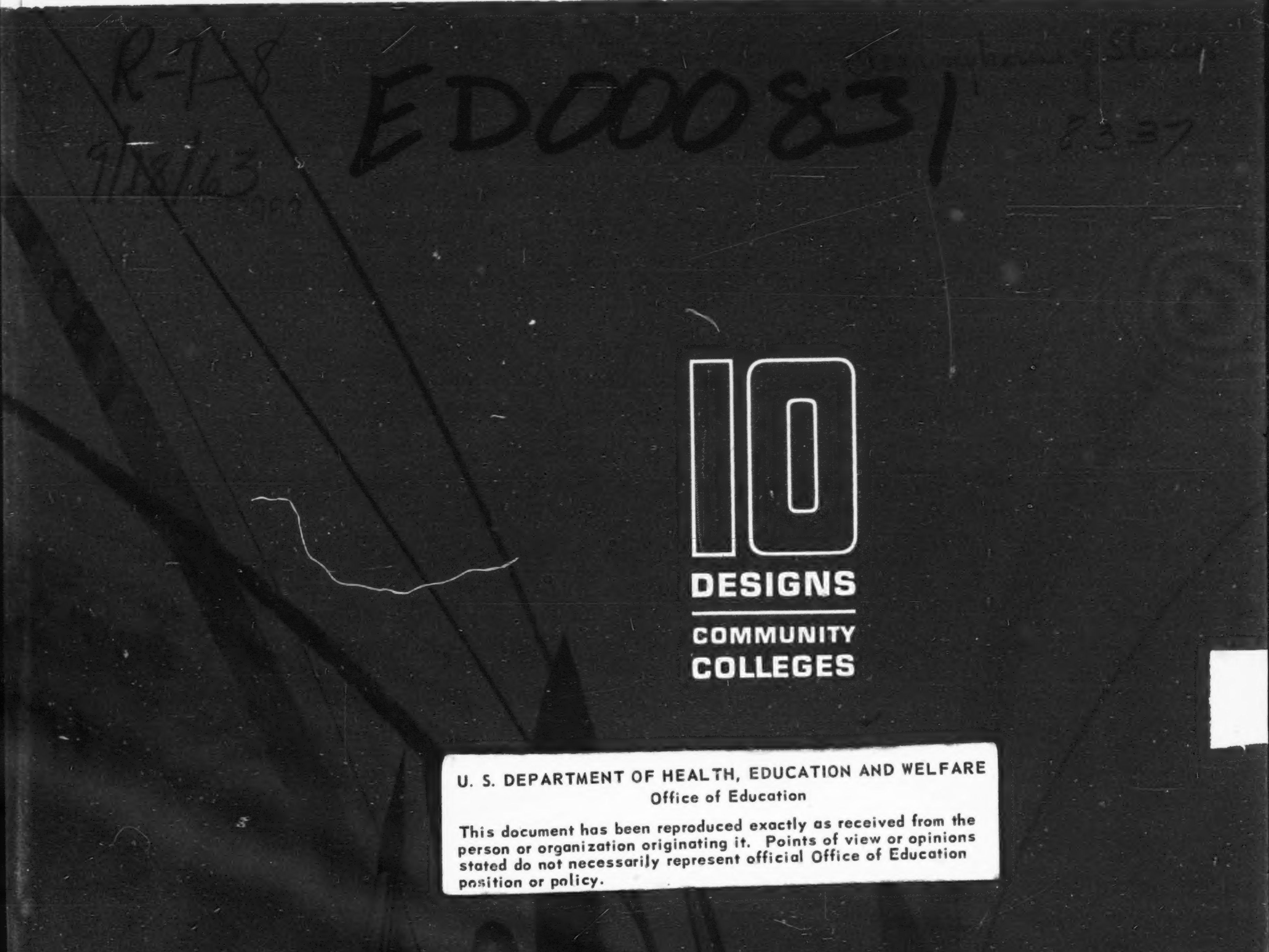

10 DESIGNS

COMMUNITY COLLEGES

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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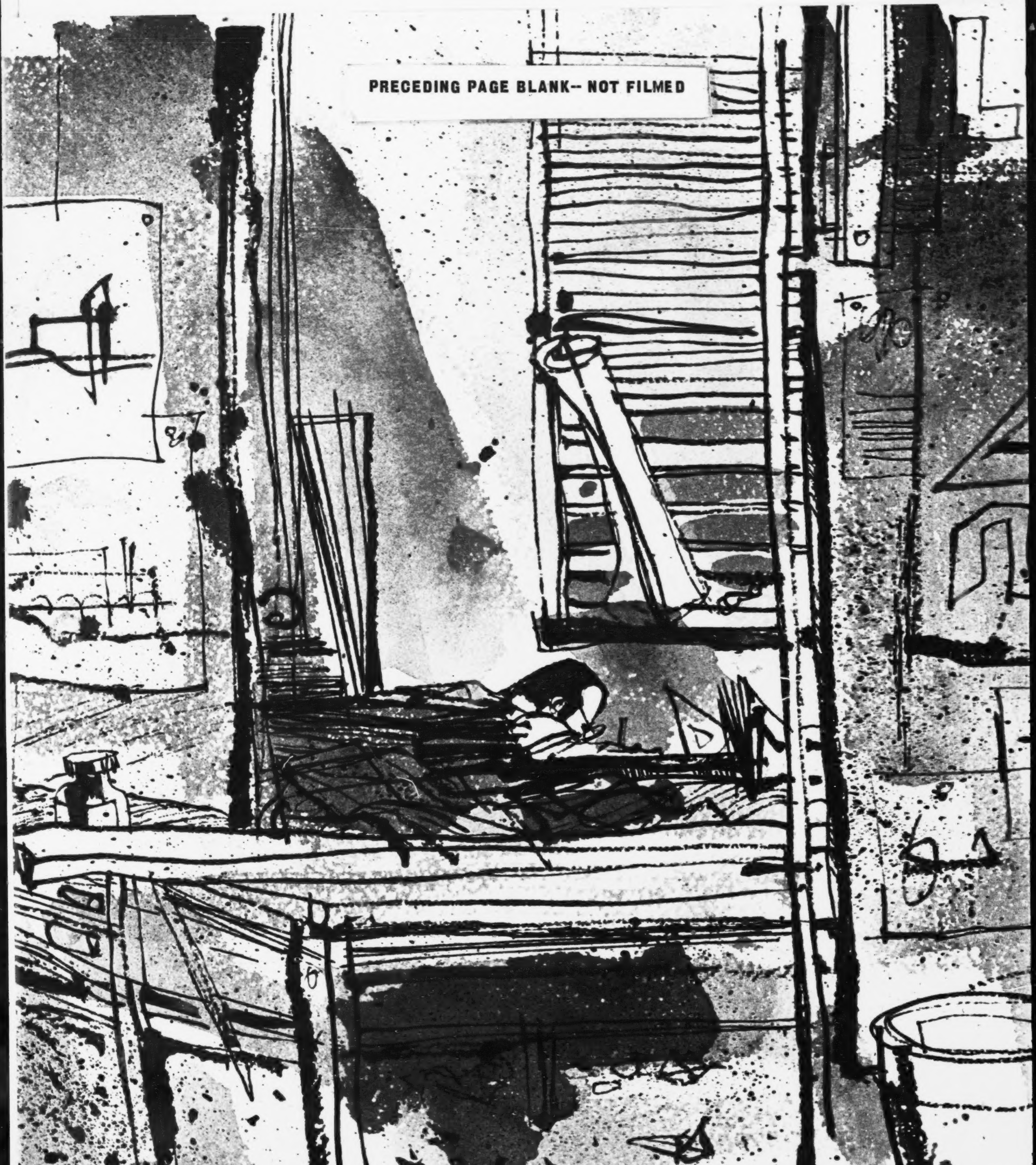

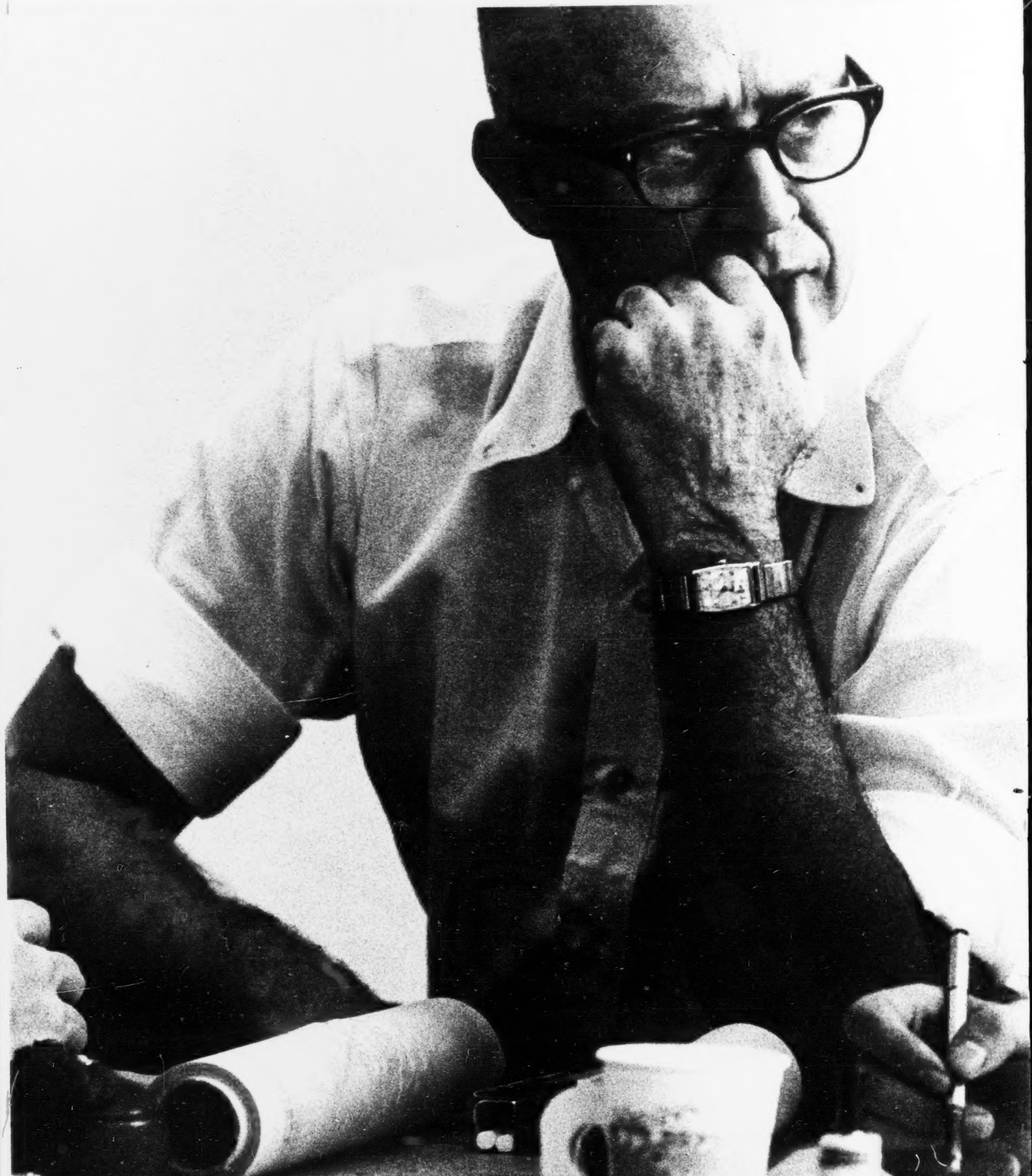

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A new kind of educational institution is blooming on the American landscape. It is called the community college and is a uniquely American institution. Its doors are open to all comers. It may be the road to industrial retraining for a 30-year old victim of technological unemployment. It may be the route to college for an 18-year-old boy who suddenly develops a real academic bent after squeezing through high school with minimal efforts and results, and who consequently isn't welcome at the state university, but will be after two years of first-rate college work at another school. Often it offers all the higher education some families can afford, since living costs away from home loom larger than tuition. And, of course, it offers part time education for those in the community who must work while they study. It is a complex institution—far more so than the Ivy League college which can populate its campus with comparatively homogeneous students who have proven their merit on College Board Exams.

The community college is likely to be the center of cultural life for the community—the natural home for the theater, library, art exhibitions, athletics (truly amateur), adult education and recreation. In most cases it belongs to the community, reflects the community, and serves the community.

Because it is of, by, and for the community, the community college must be particularly sensitive to economic and academic trends within the community. Its vocational offerings must be geared to available jobs and changing industrial needs. Its academic courses

must be organized to suit the present needs of its largely self-selected student body.

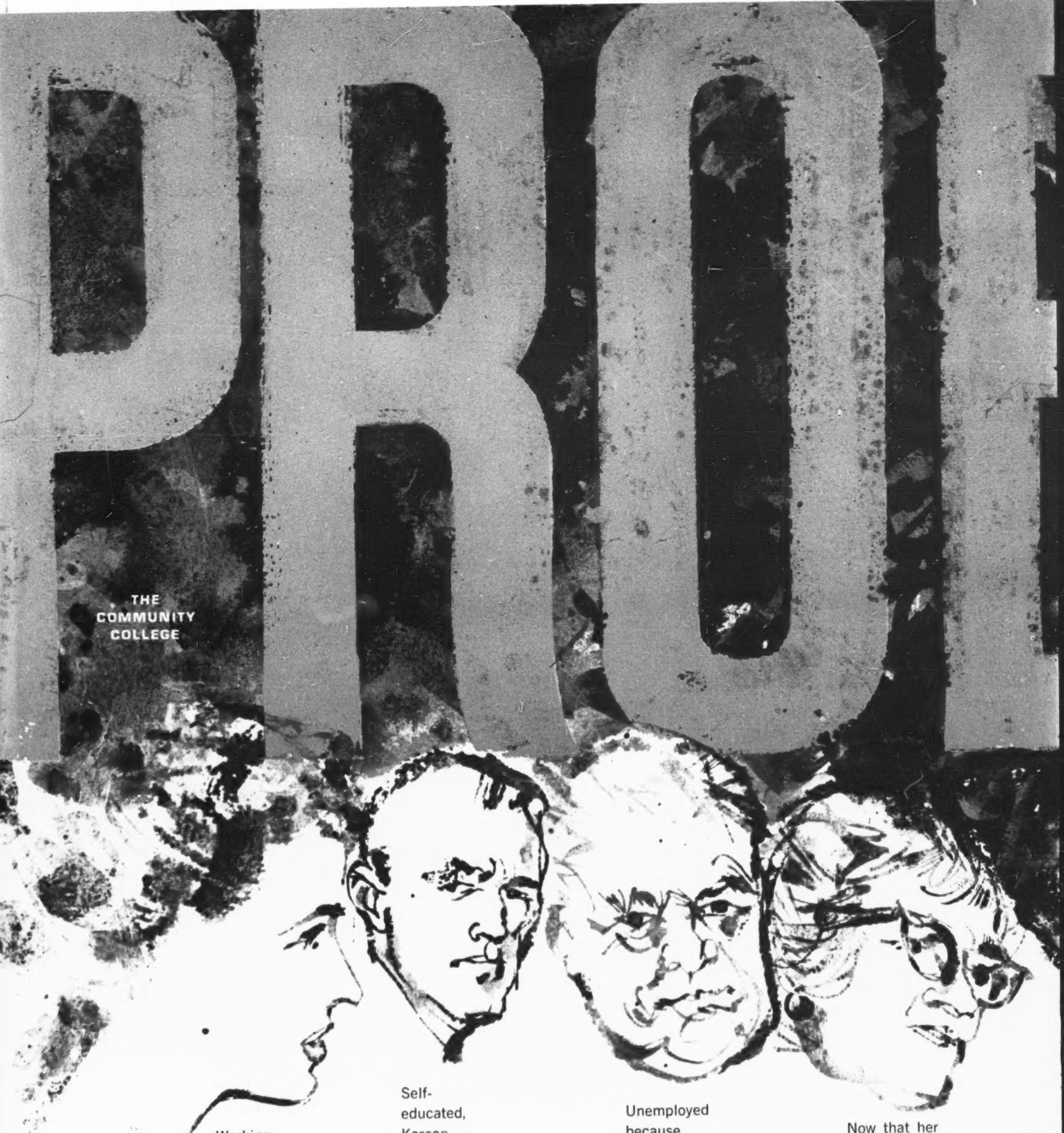
This report is about facilities for two-year community colleges. Such facilities should not be a junior version of the American college nor a jazzed up high school. The facilities must be unusually adaptable to fit the ever-changing curriculum and teaching methods of the community college, yet permanently appealing to attract the half-reluctant student. Facilities should not be juvenile or they can repel many of the non-juvenile, would-be students. In short, *this new kind of institution must have new kinds of facilities.*

The purpose of this report, and the Rice University Design Fete which produced it, is to suggest what such facilities might be. The existing and contemplated activity in this field certainly warrants such a study.

There are approximately 700 community colleges today, and twenty or more per year will be built in the foreseeable future. Two of every four students being graduated from high school today will in all probability attend a community college. If this report stimulates the trustees of some of these new colleges to examine the nature of their institutions and the appropriate shelter for them, this report and the work it represents will be justified.

To Chairman William W. Caudill, of the Rice University, Department of Architecture, and Assistant Chairman, Bill N. Lacy, and to the ten participating architects go our thanks for generating these exciting concepts for community college architecture.

Educational Facilities Laboratories

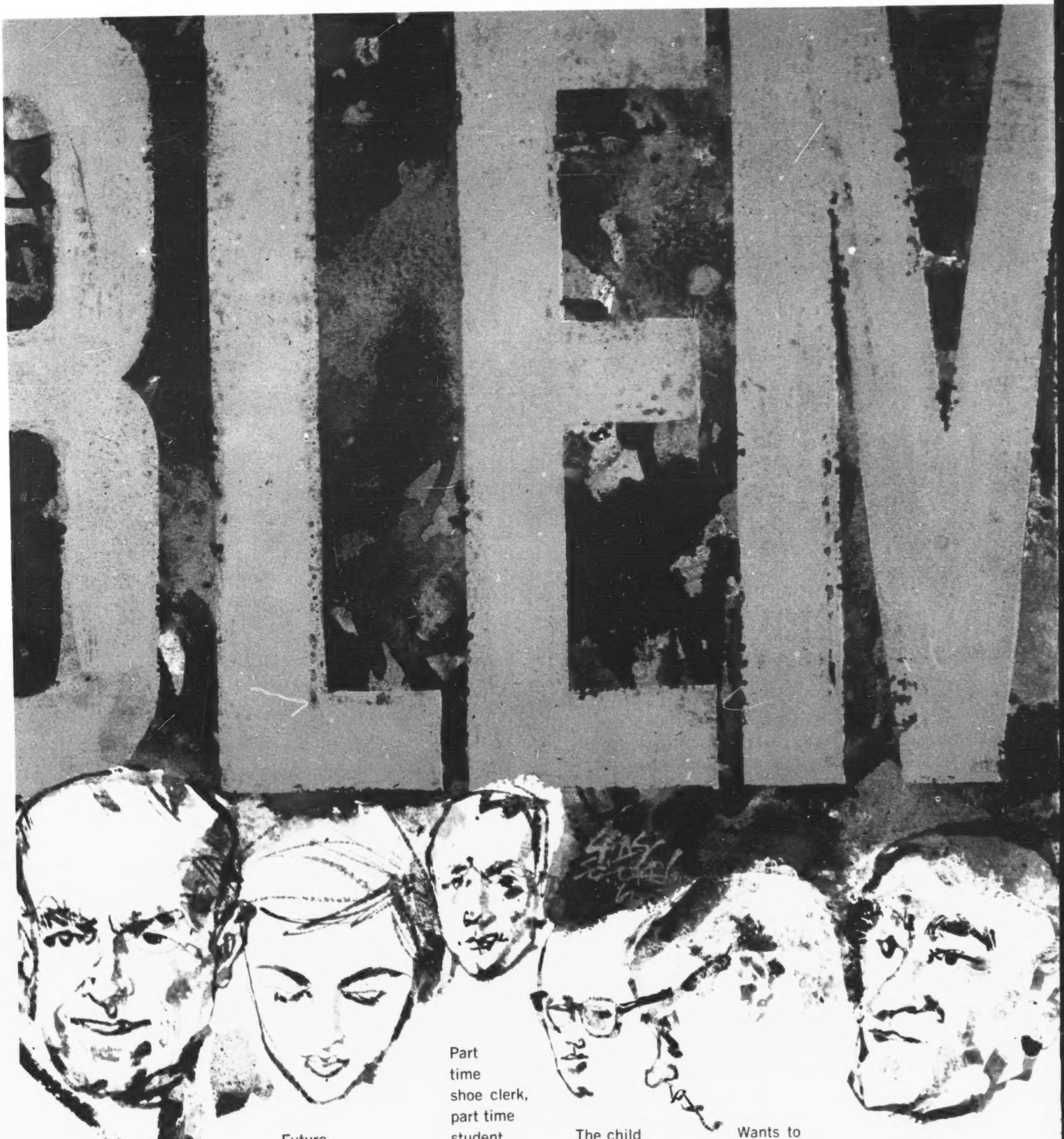

PRO
THE
COMMUNITY
COLLEGE

Working
Wife who
wants
to be
a nurse.

Self-
educated,
Korean
veteran
who seeks
a college
education.

Unemployed
because
of tech-
nological
changes in
industry.

Now that her
children are grown,
she seeks
a long-delayed
college education.



Part time student, full time civic leader-businessman.

Future teacher of America who prefers a hometown environment.

Part time shoe clerk, part time student with working wife and three children.

The child prodigy of 15 who is too young to attend a larger university.

Wants to be a farmer and improve his dad's acreage.

High school chemistry teacher acquiring credits towards a master's degree.

"Post-high school educational opportunities need to be varied in kind and life-long in extent." ***The President's Commission on National Goals, 1961***

The problem of the community college is to provide opportunities for higher education for all residents of the community, whether this community is comprised of several counties in a rural area or only a few blocks in the heart of a city. Since the two-year college is realistically geared to the community's needs, it is justifiably called a community college rather than a junior college. Its relationship to the community should ideally be tripartite: with the secondary schools, with universities and with local business and industry.

The community college places an emphasis on education throughout life. The rapid changes in technology, family and economic patterns have created a new need for education. With the labor market saturated and present educational facilities filled to capacity, more persons will turn to the community college for education. The student does not have to leave an established home or job, and the community college can offer him short courses, conferences, clinics, concerts, exhibits, basic college work, vocational-technical courses, programs for continuing education and public forums.

The community college is a new type of college. It stands between the high school and the university; it offers broad programs of experiences of value in and of themselves, and is neither post-high school nor pre-college as such. There is a tendency to try to pour new educational wine into old bottles of traditional academic concepts. This should not be. The identity of the community college and its relationship to the community are new concepts. The two-year college has its most productive development not when conceived as the first two years of the baccalaureate degree program, nor as grades thirteen and fourteen of the public school system, but as an institution in its own right.

This new college must accept the difficult assignment of designing a curriculum to suit the needs of a wide range of human capacities, interests, aptitudes and levels of intelligence. Such a curriculum must normally provide (1) a sound general education for all students, (2) university parallel courses that may be easily transferred to higher universities, (3) two-year technical courses to fit the needs of the economy of the community, and (4) a continuing educational program for all members of the community.

The "terminal" programs lead directly into vocations and assumption of responsibilities for citizenship and family life. Some programs upgrade and retrain persons in light of technological developments; and other programs satisfy the changing aspirations of the individual and imply that courses will be offered which are not for college credit, but which contribute toward creative expression in the arts, appreciation of some field of interest, or increasing civic awareness. These programs in continuing education are an integral part of a total educational pattern for the community.

The community college must meet the student at his present stage of educational development and put the emphasis on what *happens* to the student, rather than the *time* he spends. Teachers have a new challenge because they should have depth of understanding in several subject matter fields as contrasted with narrow specializations appropriate to university assignments. The teacher should recognize the increasing importance of counseling and guidance. Counseling and guidance should also be made available for non-students in the community.

A close association between local industry and the college makes it possible to provide adequate and up-to-date equipment for laboratories and shops and rich resources for instruction. "Applied" work can be done in local plants to eliminate the need for expensive and easily out-moded equipment, thereby making it possible to reduce "simulated" experience and provide "real experience."

The district in which the college is located must be sufficiently large to support the college program and facilities. The college and the state should share in financing both the costs of operation and capital construction. The state should serve as an equalization agency so the citizenry in areas of high need, but limited taxable resources, will not be denied the opportunity for continued education. In this way the charges imposed on the student for tuition and general fees can be kept to a minimum.

A good community college is organized and controlled to represent the people it serves. Administration is local rather than state or national and not subject to the control of state universities nor to departments within them. However, a state agency should provide professional consultation to insure effectiveness in meeting community needs and in maintaining the standards of instruction and student achievement.

The community college will be attended largely by a commuting population; therefore, it must be accessible in terms of travel time rather than in miles. Facilities must be provided to accommodate the daily influx of automobiles.

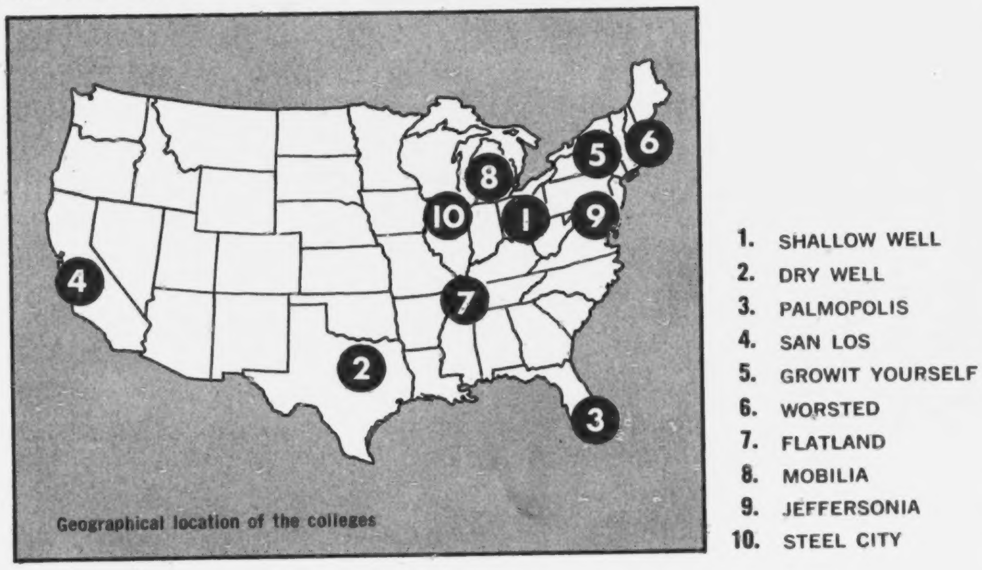
Although usually started as an appendage of another institution, it is clear that the community college deserves to have physical facilities clearly appropriate to the college program. There is not only functional value in having the college operate its own plant, but also great symbolic value. This should not be dismissed lightly.

Organization of the Conference. Ten outstanding architects and fifty advanced students of architecture from nine universities accepted invitations to participate in the Design Fete, at Rice University, June 4 through 14, 1962. They worked and lived together for ten days and nights on the campus in an uninterrupted effort to find solutions for the architecture of community colleges.

Each architect was assigned a team of five students, one of whom served as job captain. Consultants in everything from structures to psychology were available on 24-hour call.

The ten architects drew straws for their sites and case study programs on the first day. Each program described one of ten hypothetical, but typical, locations—some urban, some rural, some suburban—which were scattered over the United States and which differed in climate, size and local character. (See map). Each program included biographical sketches of twelve typical students and their courses of study, a site plan, a collection of actual climatological data, a description of the community and its economical, social and ethnic orientation, and a collection of questions and statements concerning the criteria of a good community college.

The goal of each architect was to solve his problem and give a presentation on the ninth day to the other participants and consultants. The solutions were presented with drawings, plans, sketches and models, and supported by calculations and graphs showing projected growth. No restricting guidelines were placed on the architects, and they were encouraged to seek new solutions and new concepts both in architecture and education.



Geographical location of the colleges

1. SHALLOW WELL
2. DRY WELL
3. PALMOPOLIS
4. SAN LOS
5. GROWIT YOURSELF
6. WORSTED
7. FLATLAND
8. MOBILIA
9. JEFFERSONIA
10. STEEL CITY

DIRECTOR: BILL N. LACY

Architects

Donald Barthelme
Charles William Brubaker
James H. Finch
Franklin D. Lawyer
Edmond Lay
David A. McKinley
Gyo Obata
Joseph J. Schiffer
Linn Smith
Gin Wong

Consultants

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Warren S. Bellows, Jr., *General Contractor*
John Beynon, *Consultant, Educational Facilities Laboratories*
Trenton W. Wann, *Psychologist*
Walter Moore, *Structural Engineer*

Special Consultants

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Jim Henrekin
Don Wines
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Dimitri Demopulos

Advisors

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Harold B. Gores
Edmund J. Gleazer, Jr.
Jonathan King

Rice University

Fred C. Gardner
Michael S. Adams
Stephen A. Brown
Frank S. Kelly
Charles F. Redmon
Andrew K. Belschner
Barry Moore
Edith A. Cherry
William S. Dix
Stephen E. Engberg
P. Monte Frost
John W. Mullen
Patricia V. Waddy
Thomas R. Wilson
Joseph B. Vincent
James F. Armstrong
Howard E. Eilenberger
Marcia M. Pieper
L. James McCullar
E. Bert Rucker
Philip T. Y. Chang
George E. Fowler
John Q. Lawson
Jo E. Lawson
Mary A. McCain
Valerie Vopat
Clarke D. Moore
John Young
Lewis T. Waters

Cornell University

Dick Loarie

Oklahoma State University

Robert L. Wright
Richard W. Cramer

Texas A&M College

Tom Hooker
Buddy Luther

Texas Technological College

Alan R. Sumner
Pete Kellogg

Texas University

James Sinclair Black
James W. Emmerich

Tulane University

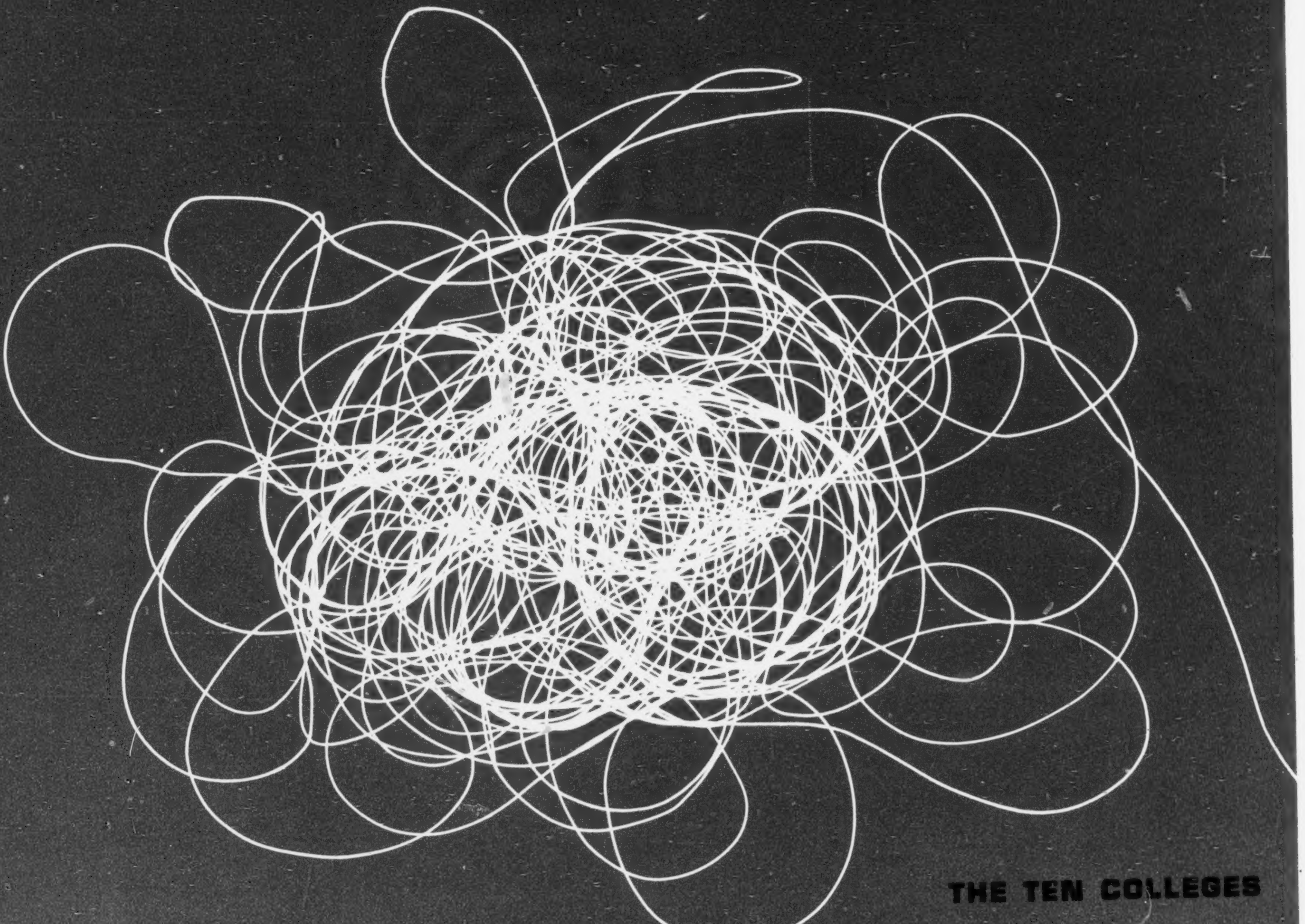
Mike McEnany
Andrew Gasaway, Jr.
Thomas Pardue

University of Houston

J. W. Wood
John Yukman
William Widdowson

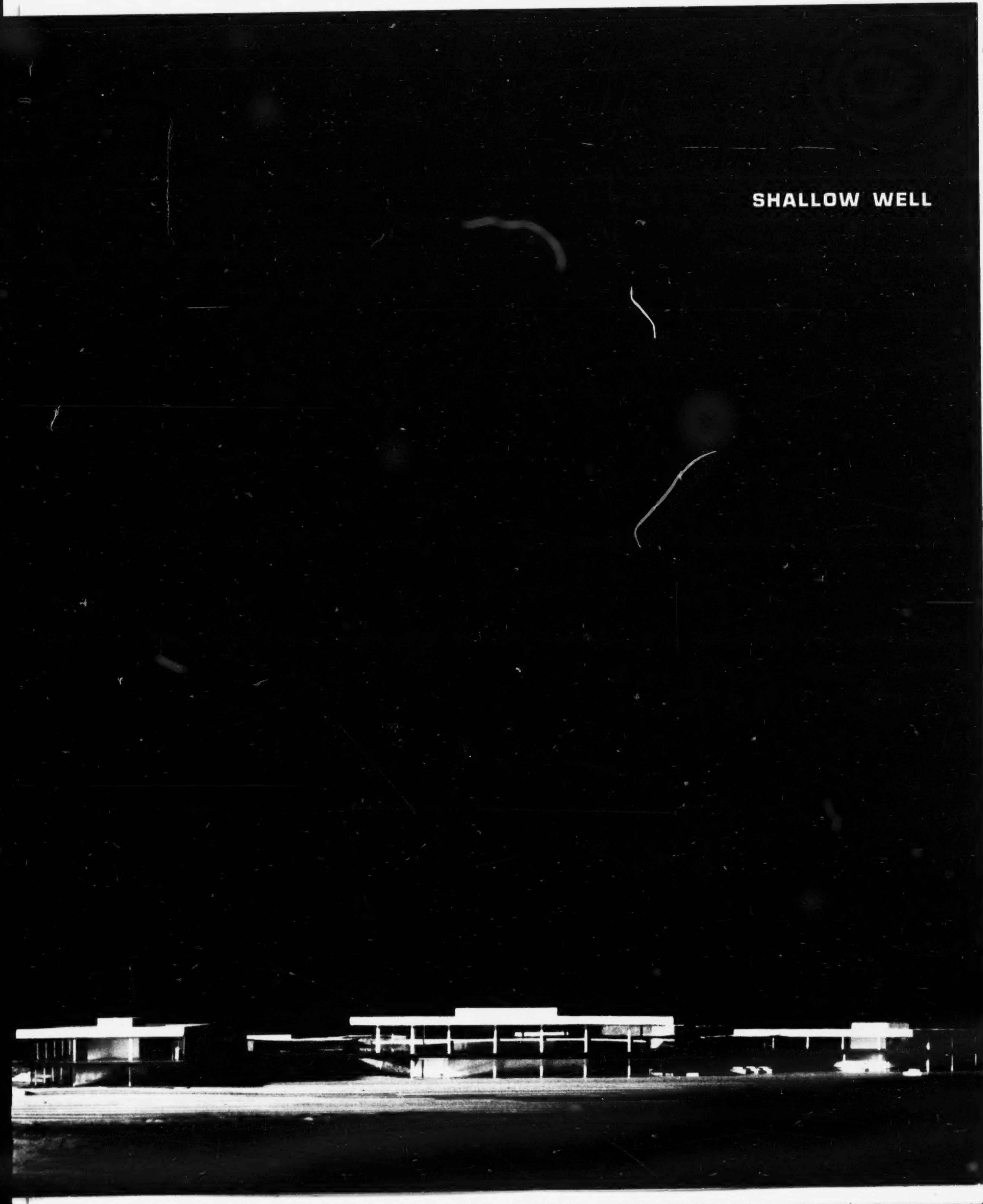
University of Kansas

William H. Mitchell
Newton W. Jones



THE TEN COLLEGES

SHALLOW WELL



A 200-ACRE RURAL COLLEGE ACCENTING INFORMALITY AND DECENTRALIZATION

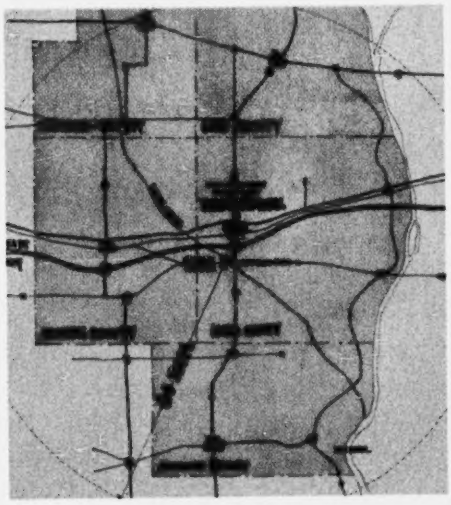
Shallow Well is a county seat in the midwest. The 600-student high school serves the town, the surrounding rural area and two nearby smaller towns. There are twelve other high schools in the county which serve twenty farm townships. The state department of education recommends a consolidation of the high schools, but after years of discussion, very little has been accomplished. The citizens of each township want to maintain their own high schools; they do not want to lose that identity; they do not want to lose a community center and a basketball team. The 200-student high schools with 2000-seat gymnasiums are defended by very patriotic township citizens.

In addition to this old problem, a new problem has developed. More students wish to continue their education beyond high school. With agricultural employment decreasing in the area, an attempt has been made to attract new industry to the area; thus education in science and technology is needed beyond the secondary school. Shallow Well needs a community college.

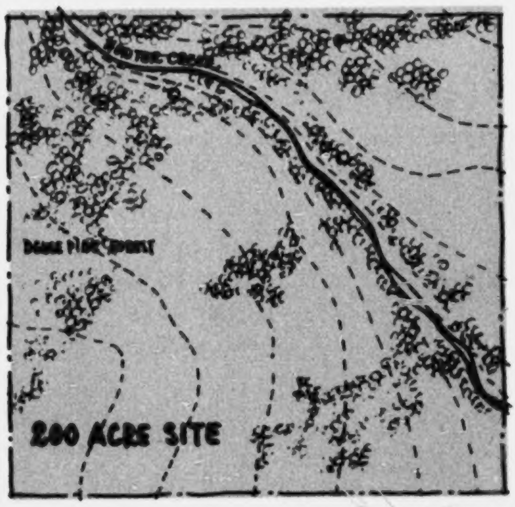
Early studies showed that Shallow Well, with only 5000 people, could not build and support a community college sufficiently large to provide the variety of programs needed by the students. By joining forces with four adjacent counties that have similar needs, a new five county community college district was formed.

The new community college will serve a geographic area approximately sixty miles in radius, or 100 miles by road. This is excessive for commuting; therefore, the college will eventually include residences for approximately 25 per cent of the full time students. (These "resident students" will live on campus during the week, but will probably return home for week ends.)

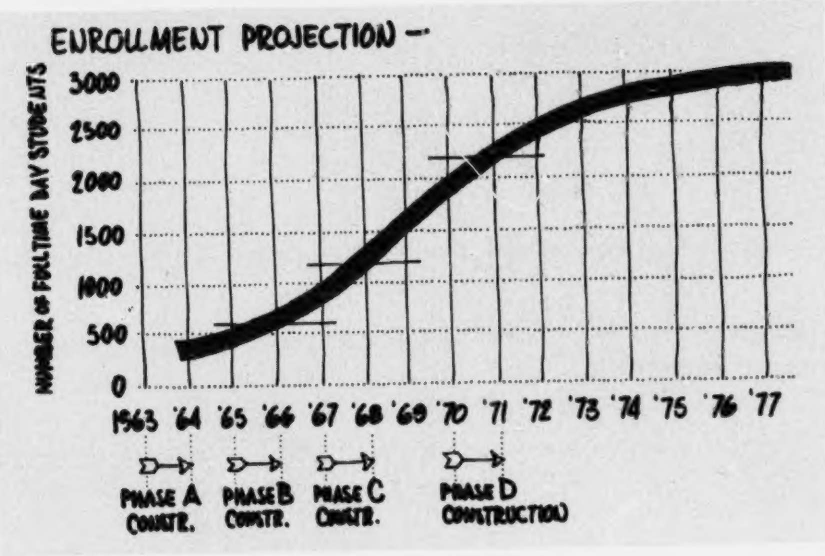
The many towns in the five counties see the community college as an opportunity both for continuing adult education and enhancing programs in secondary education. The existing small high schools will now become "little schools" in a large school system. The community college, with its specialized labs and shops, a fine library, the television studios, and large arena and auditorium, will now be the nucleus and will reinforce the small communities unable to support such facilities independently.



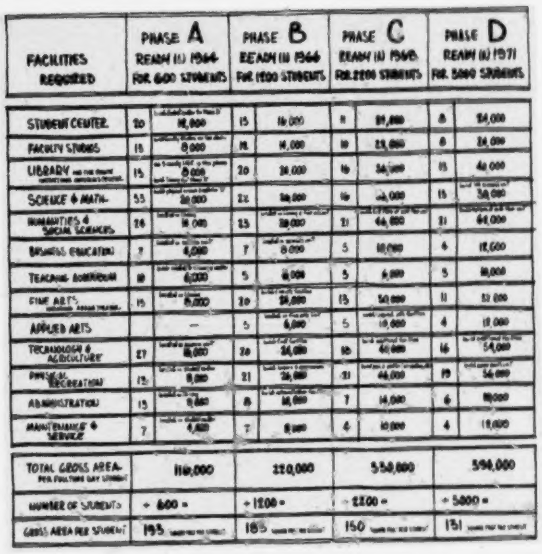
Map of 5 county college district



College site plan



Projection of enrollment



FACILITIES REQUIRED	PHASE A READY IN 1964 FOR 600 STUDENTS		PHASE B READY IN 1966 FOR 1200 STUDENTS		PHASE C READY IN 1968 FOR 2200 STUDENTS		PHASE D READY IN 1971 FOR 5000 STUDENTS	
STUDENT CENTER	20	12,000	15	16,000	11	[illegible]	8	24,000
FACULTY STUDIES	15	8,000	12	14,000	10	22,000	8	24,000
LIBRARY	15	8,000	20	24,000	16	36,000	15	40,000
SCIENCE & MATH	55	30,000	22	26,000	16	[illegible]	15	30,000
HUMANITIES & SOCIAL SCIENCES	26	16,000	23	28,000	21	46,000	11	64,000
BUSINESS EDUCATION	7	4,000	7	8,000	5	10,000	4	12,600
TEACHING AUDITORIUM	10	6,000	5	6,000	5	6,000	5	10,000
FINE ARTS	15	8,000	20	24,000	13	30,000	11	32,000
APPLIED ARTS		—	5	6,000	5	10,000	4	17,000
TECHNOLOGY & AGRICULTURE	27	16,000	20	24,000	18	40,000	16	54,000
PHYSICAL RECREATION	15	8,000	21	26,000	21	46,000	19	56,000
ADMINISTRATION	15	9,000	8	16,000	7	14,000	6	18,000
MAINTENANCE & SERVICE	7	4,000	7	8,000	4	10,000	4	19,000
TOTAL GROSS AREA	116,000		220,000		330,000		590,000	
NUMBER OF STUDENTS	÷ 600 =		÷ 1200 =		÷ 2200 =		÷ 5000 =	
GROSS AREA PER STUDENT	193		185		150		151	

Chart of growth in 4 phases

The long range campus plan makes growth possible by avoiding "dead end" designs that stop the natural process of growth and change. This principle should be a management policy, "Make no decisions that prevent decisions later." The community college, not knowing the exact nature of its future needs, should enjoy freedom to grow and change.

The property chosen for this five county college is large – 200 acres of rolling, wooded land. It is located five miles from Shallow Well and is the geographic center of the five county area. Half the property is covered by a dense pine forest, and the site is traversed by an attractive creek. The central area is an open rolling meadow.

SOLUTION The college will be located on the brow of the natural hill overlooking the creek. The college will grow outward in both directions following the brow of the hill and the curve of the creek. Later growth will extend southwest following the area between the forest and the meadow.

Most students and faculty will commute by private automobile or scheduled busses. Entrance to the site is via a road at the southeast corner, which presents a pleasing introduction to the campus along the creek. Circular parking areas will be hidden by the existing trees and will be located a few hundred feet from building areas.

The student residence area occupies the sixty acre triangle across the creek and allows both privacy and easy walking access. The area is ample for automobile parking, some playfields and tennis courts, and future faculty housing. An area for physical recreation will be established at the edge of the meadow south of the center of the campus. At this location physical recreation facilities will have freedom to grow in stages without conflict from other facilities. A heliport and agricultural field will occupy the southwest part of the property.

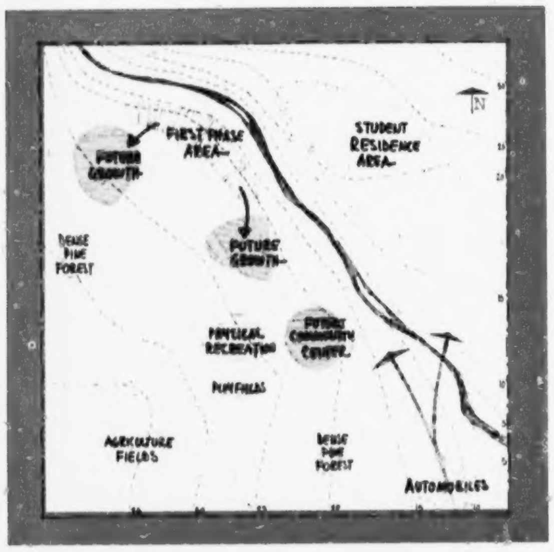
Experimental agricultural fields will occupy the flattest part of the site, but not all agricultural fields will be located on the site. Others will be leased from farms nearby to provide diversity of types of fields to broaden the agricultural program. Agricultural offices in the five county seats will aid in the program. Students will travel by bus (and by television) to their offices, laboratories, shops and fields. The principle of extending the college beyond the site is a major asset of the community college.

The community college and industry are important to each other. Cooperative programs with industries in the area take students into plants and bring individuals from the industries onto the campus. The college's physical facilities will not be limited to the buildings that "happen" to be located on campus.

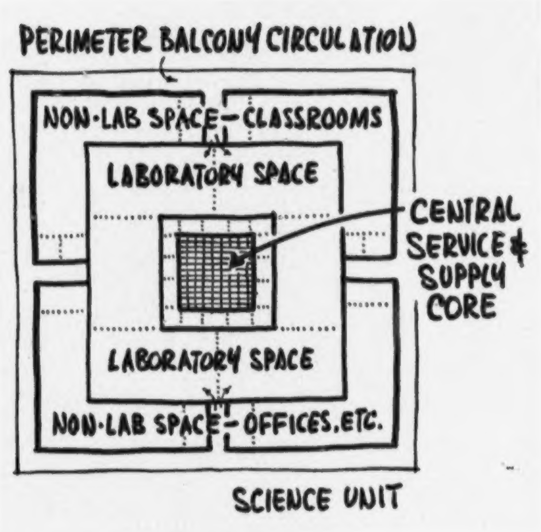
The most dramatic example of extending the college from the nucleus out to the entire community is the establishment of a five county television center. It serves the college, adults, and elementary and secondary school students within the sixty-mile radius. This educational television center serves thousands of students and has the proper economic base to be an excellent station with good studios and a complete programming and technical staff. The television transmitting mast will become an important symbol on the campus.

An excellent library of sufficient size will be needed to permit use of not only books and periodicals, but also other forms of recorded information which can be collected and distributed. An instructional materials center will provide film, tape, microfilm, videotape, slides, programmed learning material, maps, charts, models, and the necessary equipment for the use of the new media. Such a center will extend the influence of the college and attracts individuals with special competencies to the campus.

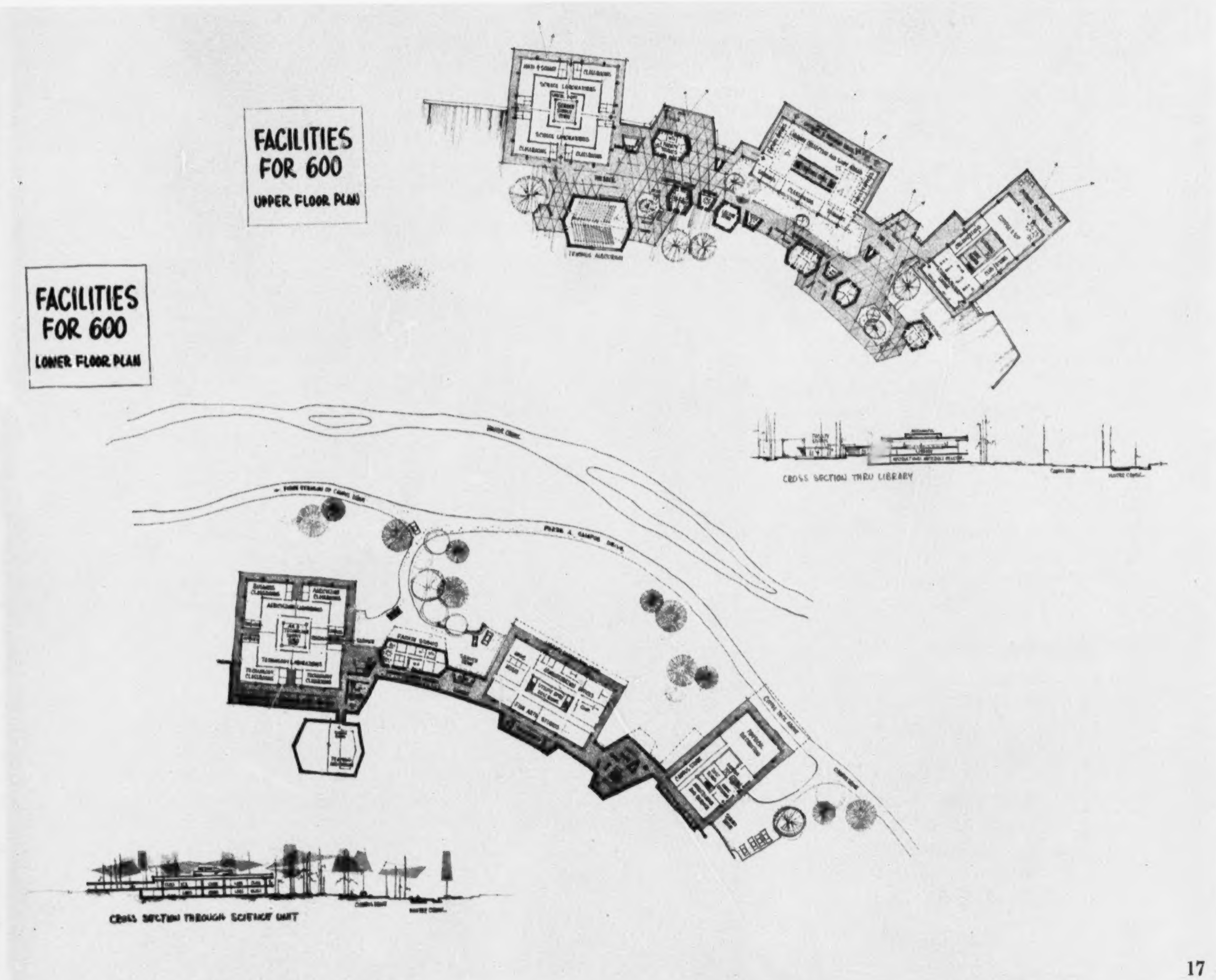
Library services, however, will no longer be limited to the actual library building, because electronic equipment makes it possible to transmit sounds and images any distance to the classroom, the laboratory and to a student's residence by dialing and electronically receiving the research material needed. So the library will be extended by bookmobiles, tape, television tubes and switchgear.


FIRST PHASE AREA
FUTURE GROWTH
STUDENT RESIDENCE AREA
DENSE PINE FOREST
FUTURE GROWTH
PHYSICAL RECREATION
FUTURE COMMUNITY CENTER
PLAYFIELDS
AGRICULTURE FIELDS
DENSE PINE FOREST
AUTOMOBILES
N

Future growth site plan


PERIMETER BALCONY CIRCULATION
NON-LAB SPACE—CLASSROOMS
LABORATORY SPACE
CENTRAL SERVICE & SUPPLY CORE
LABORATORY SPACE
NON-LAB SPACE—OFFICES, ETC.
SCIENCE UNIT

Science unit schematic


FACILITIES FOR 600
UPPER FLOOR PLAN
FACILITIES FOR 600
LOWER FLOOR PLAN
CROSS SECTION THRU LIBRARY
CROSS SECTION THROUGH SCIENCE UNIT

PHASE A

FOR 600 STUDENTS–1964-1965

Initial space is designed to (1) serve 600 students efficiently, (2) permit growth, and (3) be an effective part of a greater space to serve 3000 students in fifteen years. Each unit built is a long range investment as a shell. Three major flexible units sized for long range Phase D needs, but assigned other functions for Phase A, are the first step:

1. Science unit: Phase A, half the space is utilized for science and mathematics, the other half for business, technology and agriculture.
2. Library: defers establishment of the five county instructional materials center until Phase B. Utilizes most of the space for humanities and social sciences classrooms, faculty offices, fine arts, and administration.
3. Student center: uses half the space for physical recreation, maintenance and service.

The major units are linked by a connecting deck upon which many small studio buildings tailored to specific uses, (faculty studios, conference and seminar rooms and individual study carrels) are located. More faculty studies, study areas and corridors are located beneath this deck.

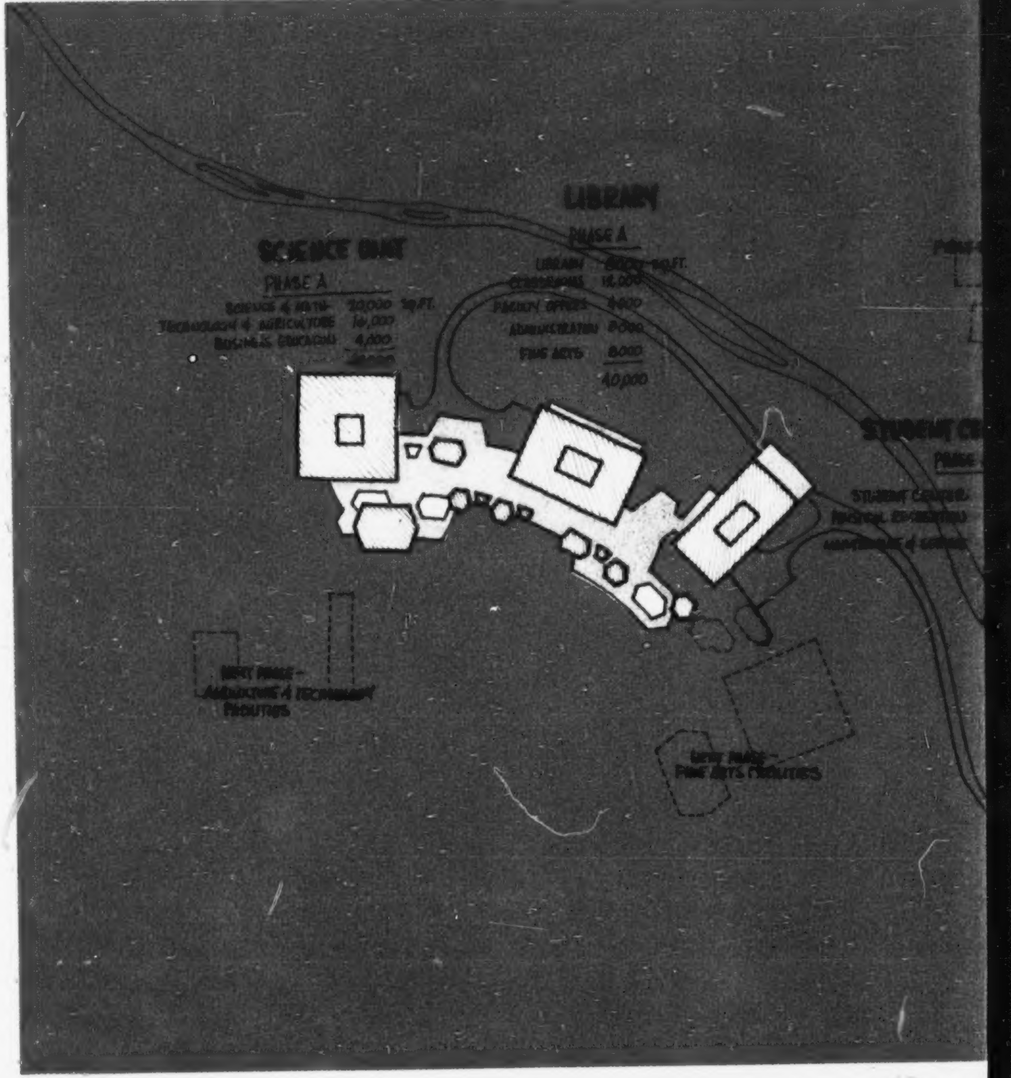
The individual is provided the choice of a wide variety of environments. He can work in an efficient, windowless, well-equipped, business laboratory. He can hear a lecture and see a demonstration in the teaching auditorium. He can participate in a seminar discussion in a small group room with splendid views into the trees. Or he can study in the secluded environment of a small studio.

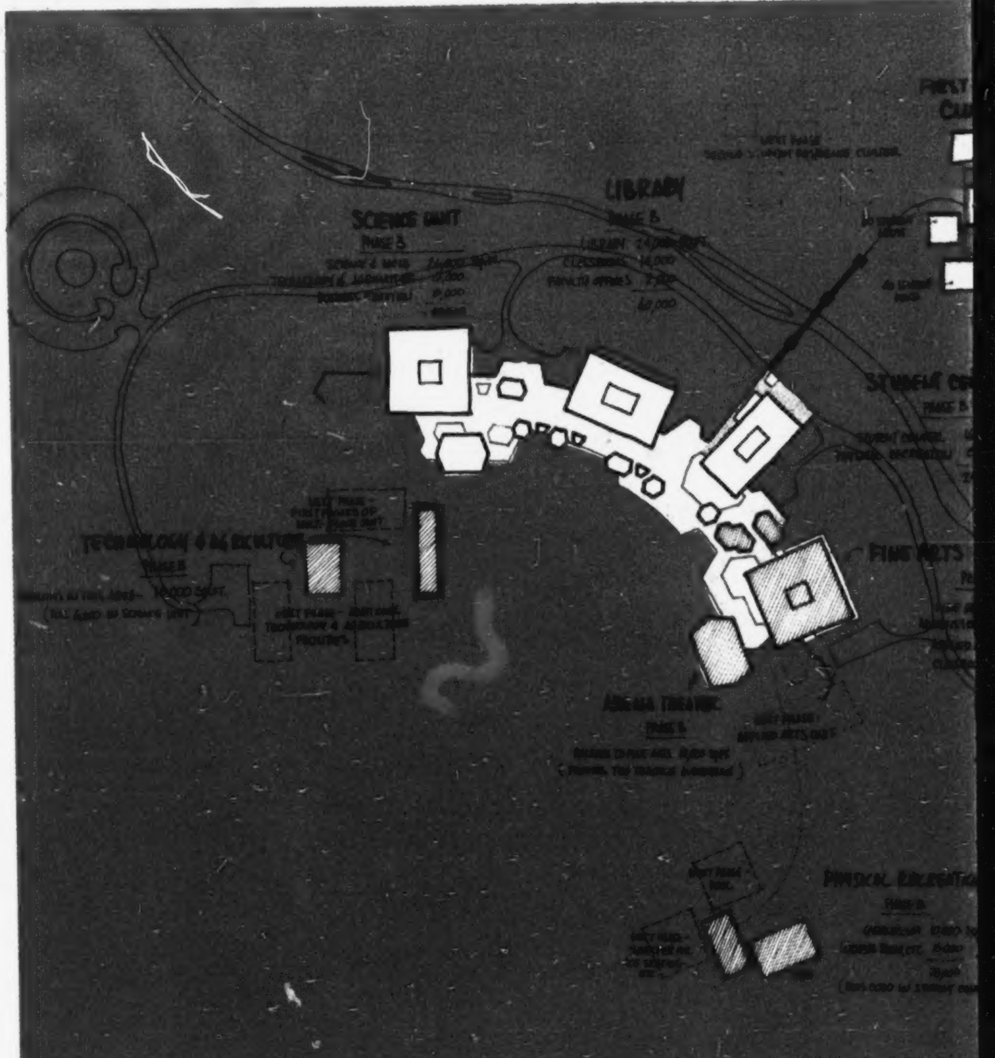
PHASE B

FOR 1200 STUDENTS – 1966-1967

The fine arts and administration unit and an arena theater, which can be divided into two large group teaching spaces, is added.

The physical recreation cluster is started. A central locker room unit and a gymnasium are built. Three future units are proposed: (1) a swimming pool, (2) a large roof shelter under which ice skating and other sports would occur,


SCIENCE UNIT
PHASE A
SCIENCE & MATH 20,000 SQ.FT.
TECHNOLOGY & AGRICULTURE 16,000
BUSINESS EDUCATION 4,000
LIBRARY
PHASE A
SQ.FT.
CLASSROOMS 16,000
FACULTY OFFICES
ADMINISTRATION
FINE ARTS 8,000
40,000
STUDENT CENTER
PHASE
STUDENT CENTER
PHYSICAL RECREATION
MAINTENANCE & SERVICE
NEXT PHASE - AGRICULTURE & TECHNOLOGY FACILITIES
NEXT PHASE - FINE ARTS FACILITIES


SCIENCE UNIT
PHASE B
LIBRARY
PHASE B
STUDENT CENTER
FINE ARTS
TECHNOLOGY & AGRICULTURE
PHASE B
ARENA THEATRE
PHASE B
NEXT PHASE - FINE ARTS UNIT
PHYSICAL RECREATION
PHASE B

PHASE A

FOR 600 STUDENTS—1964-1965

itial space is designed to (1) serve 600 idents efficiently, (2) permit growth, d (3) be an effective part of a greater ace to serve 3000 students in fifteen ars. Each unit built is a long range vestment as a shell. Three major flex- le units sized for long range Phase D eds, but assigned other functions for ase A, are the first step:

1. Science unit: Phase A, half the space is utilized for science and mathematics, the other half for business, technology and agriculture.
2. Library: defers establishment of the five county instructional materials center until Phase B. Utilizes most of the space for humanities and social sciences classrooms, faculty offices, fine arts, and administration.
3. Student center: uses half the space for physical recreation, maintenance and service.

he major units are linked by a con- ecting deck upon which many small udio buildings tailored to specific uses, aculty studios, conference and seminar oms and individual study carrels) are cated. More faculty studies, study areas nd corridors are located beneath this eck.

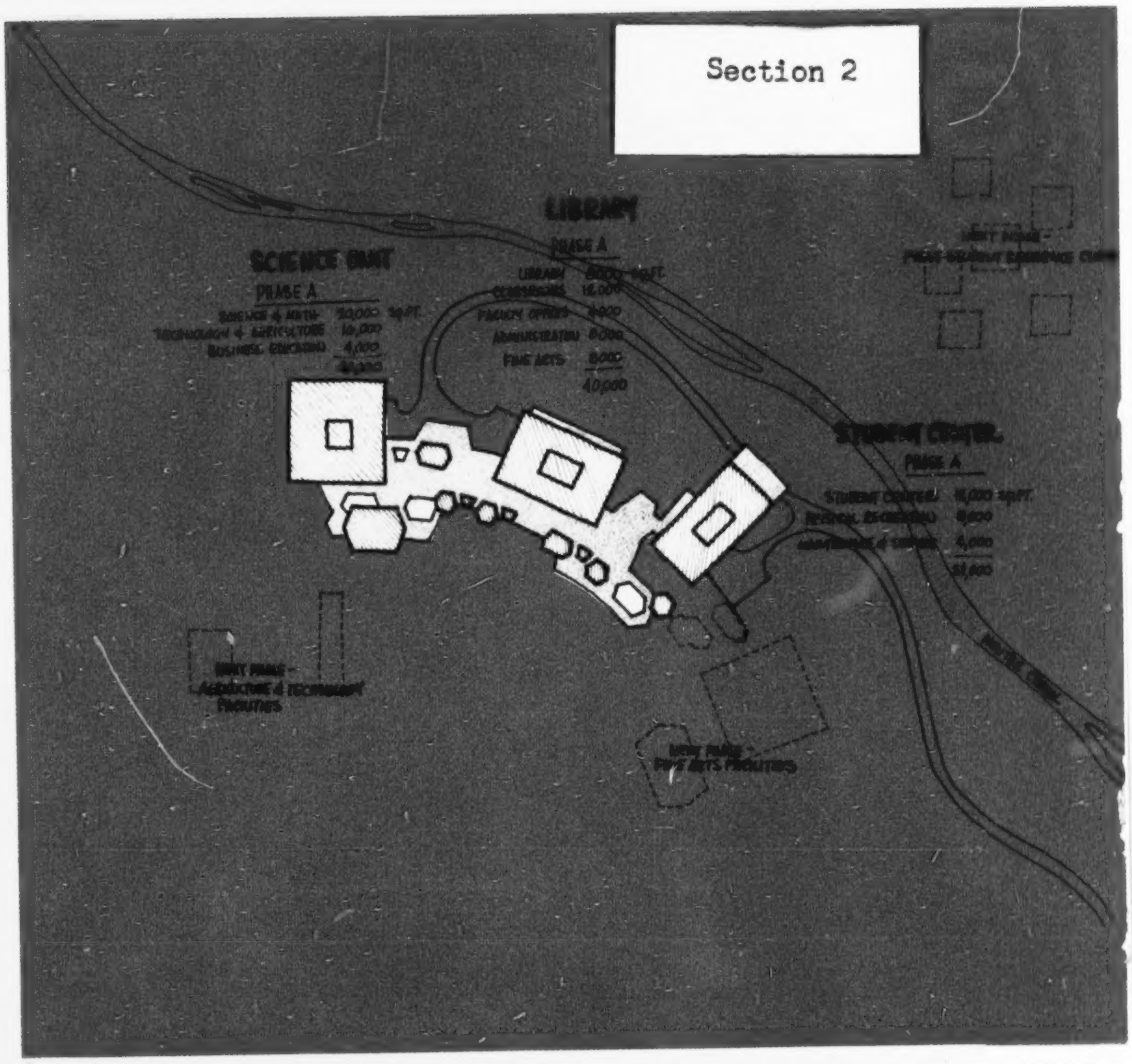
The individual is provided the choice f a wide variety of environments. He an work in an efficient, windowless, vell-equipped, business laboratory. He an hear a lecture and see a demonstra- ion in the teaching auditorium. He can articipate in a seminar discussion in small group room with splendid views nto the trees. Or he can study in the ecluded environment of a small studio.

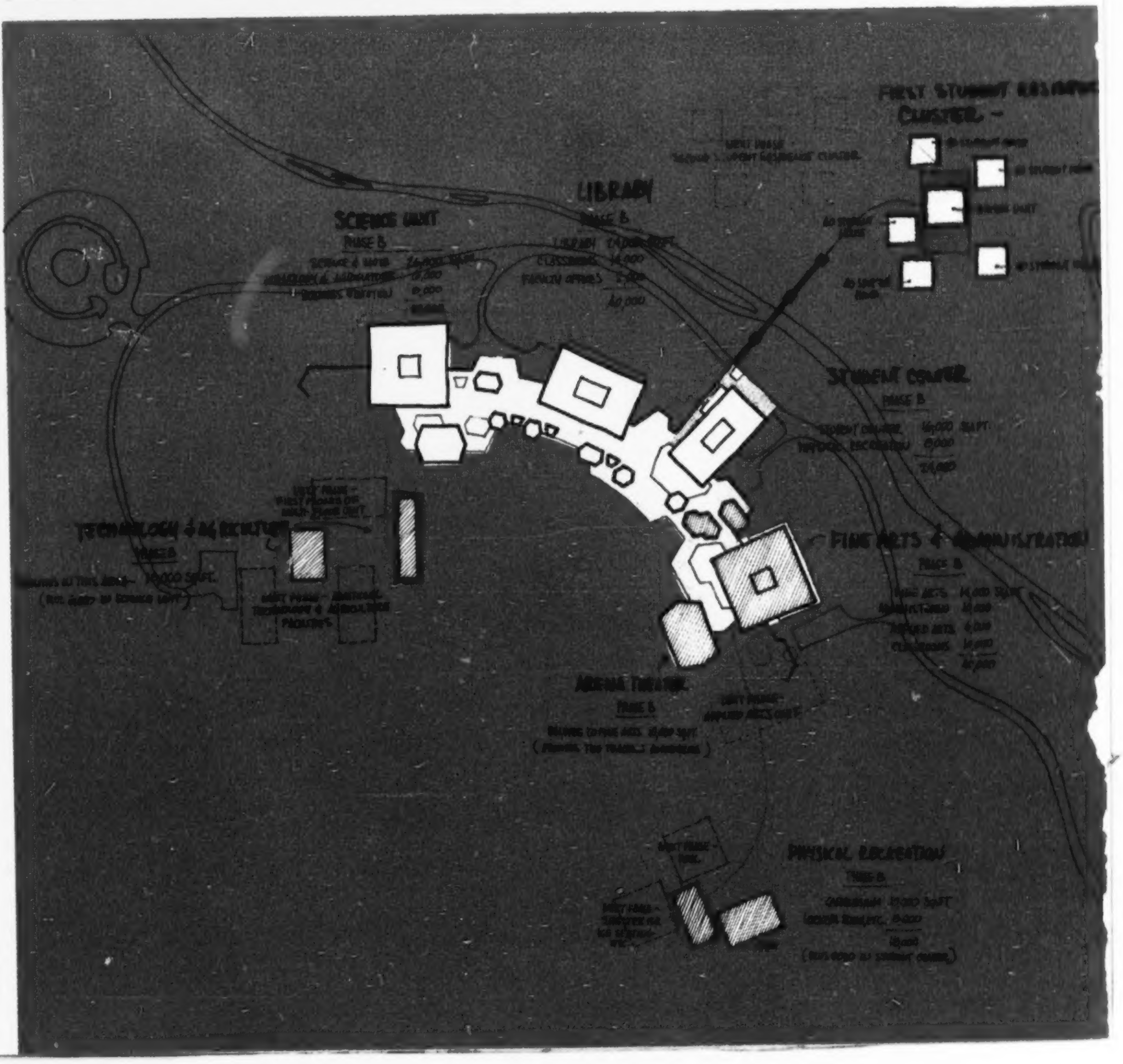
PHASE B

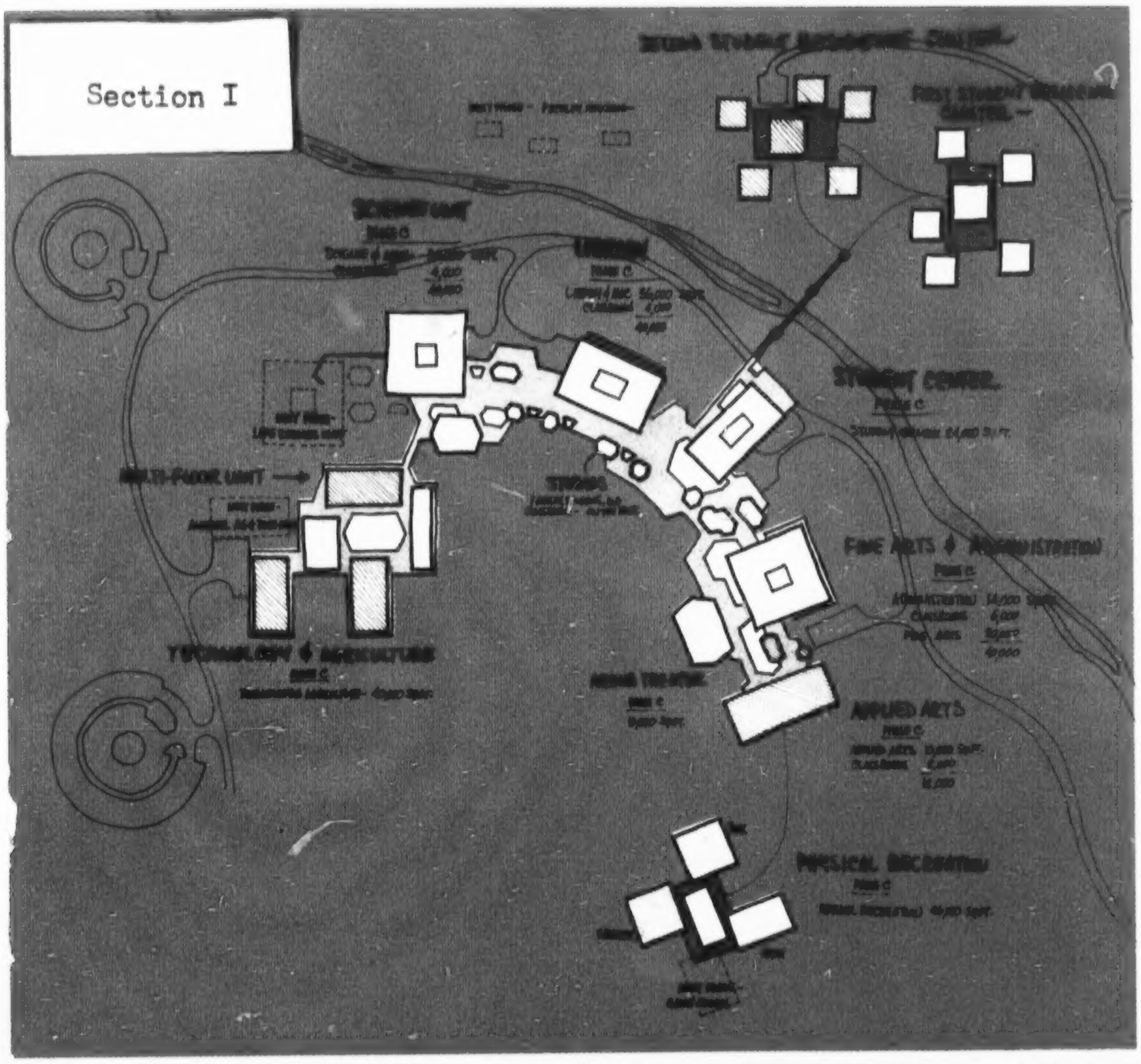
FOR 1200 STUDENTS — 1966-1967

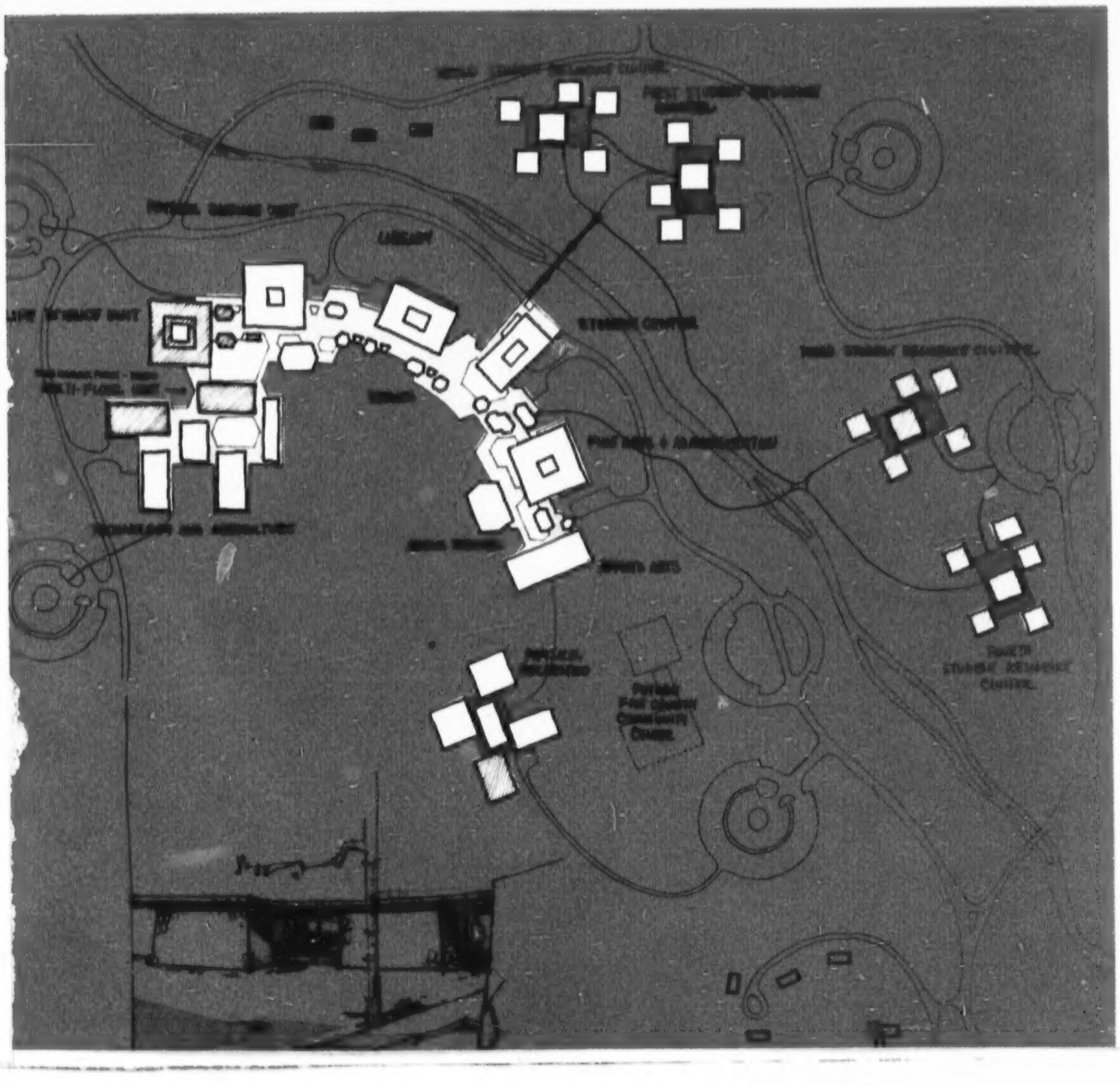
The fine arts and administration unit nd an arena theater, which can be livided into two large group teaching paces, is added.

The physical recreation cluster is tarted. A central locker room unit and gymnasium are built. Three future nits are proposed: (1) a swimming pool, 2) a large roof shelter under which ice skating and other sports would occur,


Section 2
LIBRARY
PHASE A
LIBRARY 8,000 SQ.FT.
CLASSROOMS 16,000
FACULTY OFFICES 8,000
ADMINISTRATION 8,000
FINE ARTS 8,000
40,000
SCIENCE UNIT
PHASE A
SCIENCE & MATH 20,000 SQ.FT.
TECHNOLOGY & AGRICULTURE 16,000
BUSINESS EDUCATION 4,000
40,000
STUDENT CENTER
PHASE A
STUDENT CENTER 16,000 SQ.FT.
PHYSICAL RECREATION 8,000
MAINTENANCE & SERVICE 4,000
NEXT PHASE -
AGRICULTURE & TECHNOLOGY FACILITIES
NEXT PHASE -
FINE ARTS FACILITIES


FIRST STUDENT RESIDENCE CLUSTER -
LIBRARY
PHASE B
LIBRARY 24,000 SQ.FT.
CLASSROOMS 14,000
FACULTY OFFICES
40,000
SCIENCE UNIT
PHASE B
SCIENCE & MATH 24,000 SQ.FT.
STUDENT CENTER
PHASE B
STUDENT CENTER 16,000 SQ.FT.
PHYSICAL RECREATION 8,000
24,000
TECHNOLOGY & AGRICULTURE
PHASE B
FINE ARTS & ADMINISTRATION
PHASE B
FINE ARTS 16,000 SQ.FT.
ADMINISTRATION 10,000
APPLIED ARTS 4,000
CLASSROOMS 10,000
40,000
ARENA THEATER
PHASE B
PHYSICAL RECREATION
PHASE B


Section I
FIRST STUDENT RESIDENCE CLUSTER
STUDENT CENTER
MULTI-FLOOR UNIT
STUDIOS
FINE ARTS & ADMINISTRATION
TECHNOLOGY & AGRICULTURE
APPLIED ARTS
PHYSICAL RECREATION


FIRST STUDENT RESIDENCE CLUSTER
LIBRARY
STUDENT CENTER
MULTI-FLOOR UNIT
APPLIED ARTS
FOURTH STUDENT RESIDENCE CLUSTER

and (3) a game court unit for hand
volleyball, etc. The cluster design
mits construction of the units du
three or four phases, in any order,
opportunity to revise the plan as n
change. This is a recreation facility
exhibition gymnasium is included.

New space is built for technology
agriculture, freeing space in the orig
science unit for the growing science
gram. The first student residence cl
is established across the creek from
student center.

PHASE C

FOR 2200 STUDENTS – 1968-1970

The three original major units – sci
library, and student center – now
used by the functions for which
were designed. During Phase D
applied arts unit is built (and fine
expands into the space vacate
applied arts). Additional units for
nology and agriculture are built,
two more units for physical recre
are added. A multi-floor buildin
started to provide new space for hun
ties and social sciences. Another stu
residence cluster for 200 students is b
Five houses for forty students ea
clustered around a central dining
with four dining rooms. The dining
can be a cafeteria for 200 studen
opened to serve 600 or serve 200
seated meal.

PHASE D

FOR 3000 STUDENTS – 1971-1977

A life sciences unit, another techn
unit, and the fourth physical recre
unit are built. The upper floors o
multi-floor unit are completed.
more student residence clusters are
structed, bringing the total numb
students living on campus to 800
facilities are now used with great
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has been dropping since Phase A a
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growth will not appreciably effec
efficiency of space utilization.

There is little motive to grow be
the 3000 enrollment, especially sinc
five counties are now exploring the
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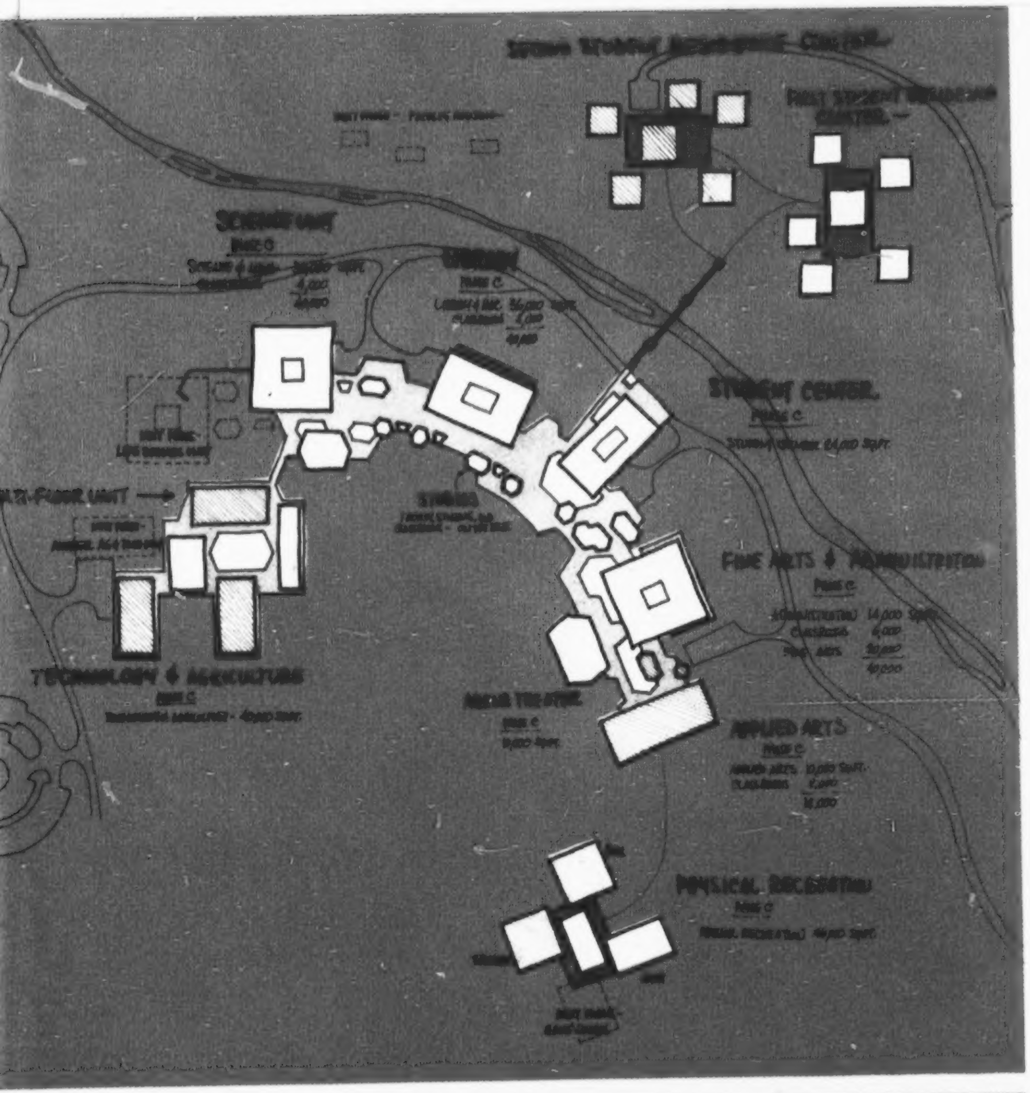
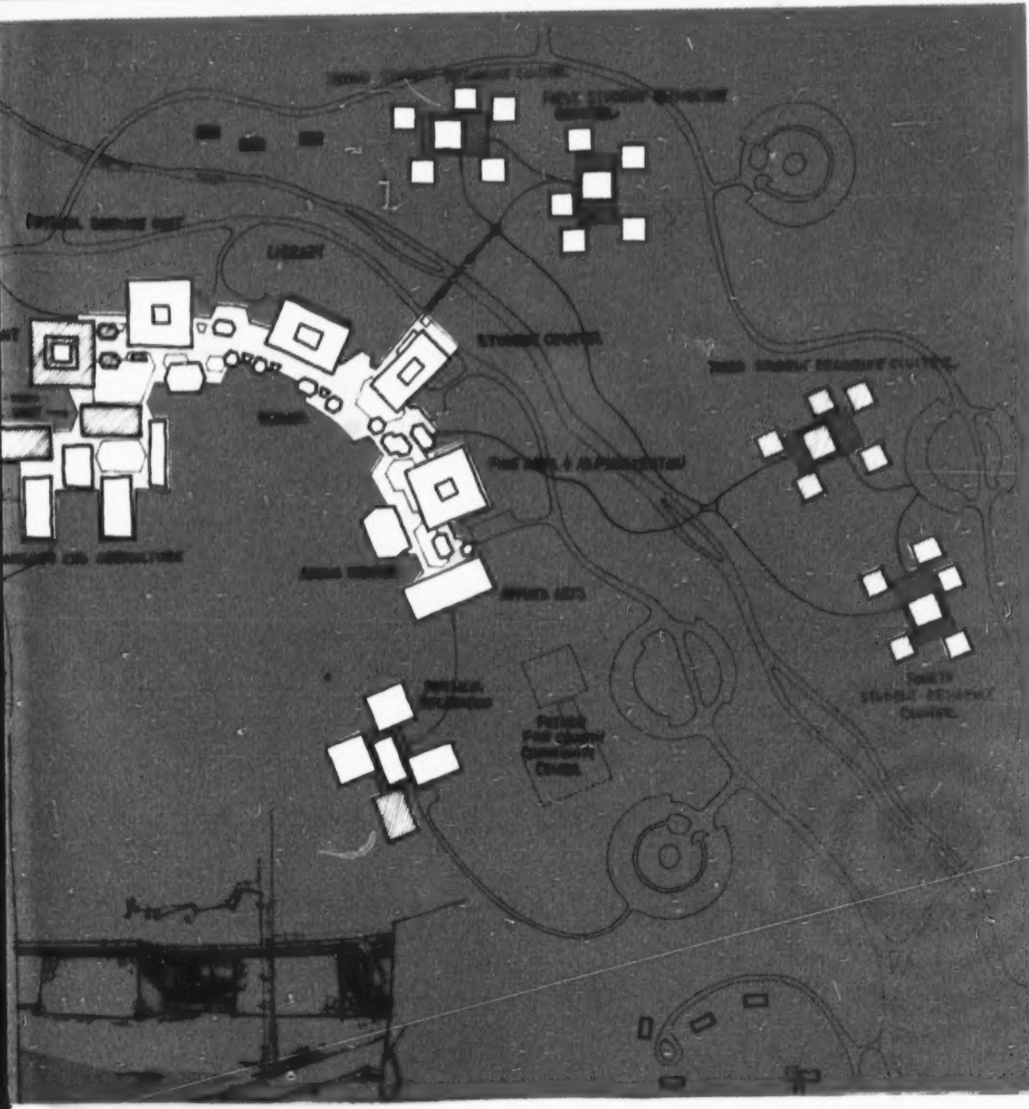
The seed has been sown.


SECOND STUDENT RESIDENCE CENTER
FIRST STUDENT RESIDENCE CENTER
SCIENCE UNIT
PHASE C
LIBRARY
PHASE C
STUDENT CENTER
PHASE C
MULTI-FLOOR UNIT
STUDIOS
FINE ARTS & ADMINISTRATION
PHASE C
TECHNOLOGY & AGRICULTURE
PHASE C
ARENA THEATER
PHASE C
APPLIED ARTS
PHASE C
PHYSICAL RECREATION
PHASE C


FIRST STUDENT RESIDENCE CENTER
LIBRARY
STUDENT CENTER
THIRD STUDENT RESIDENCE CENTER
FINE ARTS & ADMINISTRATION
ARENA THEATER
APPLIED ARTS
PHYSICAL RECREATION
FOURTH STUDENT RESIDENCE CENTER

and (3) a game court unit for handball, volleyball, etc. The cluster design permits construction of the units during three or four phases, in any order, with opportunity to revise the plan as needs change. This is a recreation facility; no exhibition gymnasium is included.

New space is built for technology and agriculture, freeing space in the original science unit for the growing science program. The first student residence cluster is established across the creek from the student center.

PHASE C

FOR 2200 STUDENTS – 1968-1970

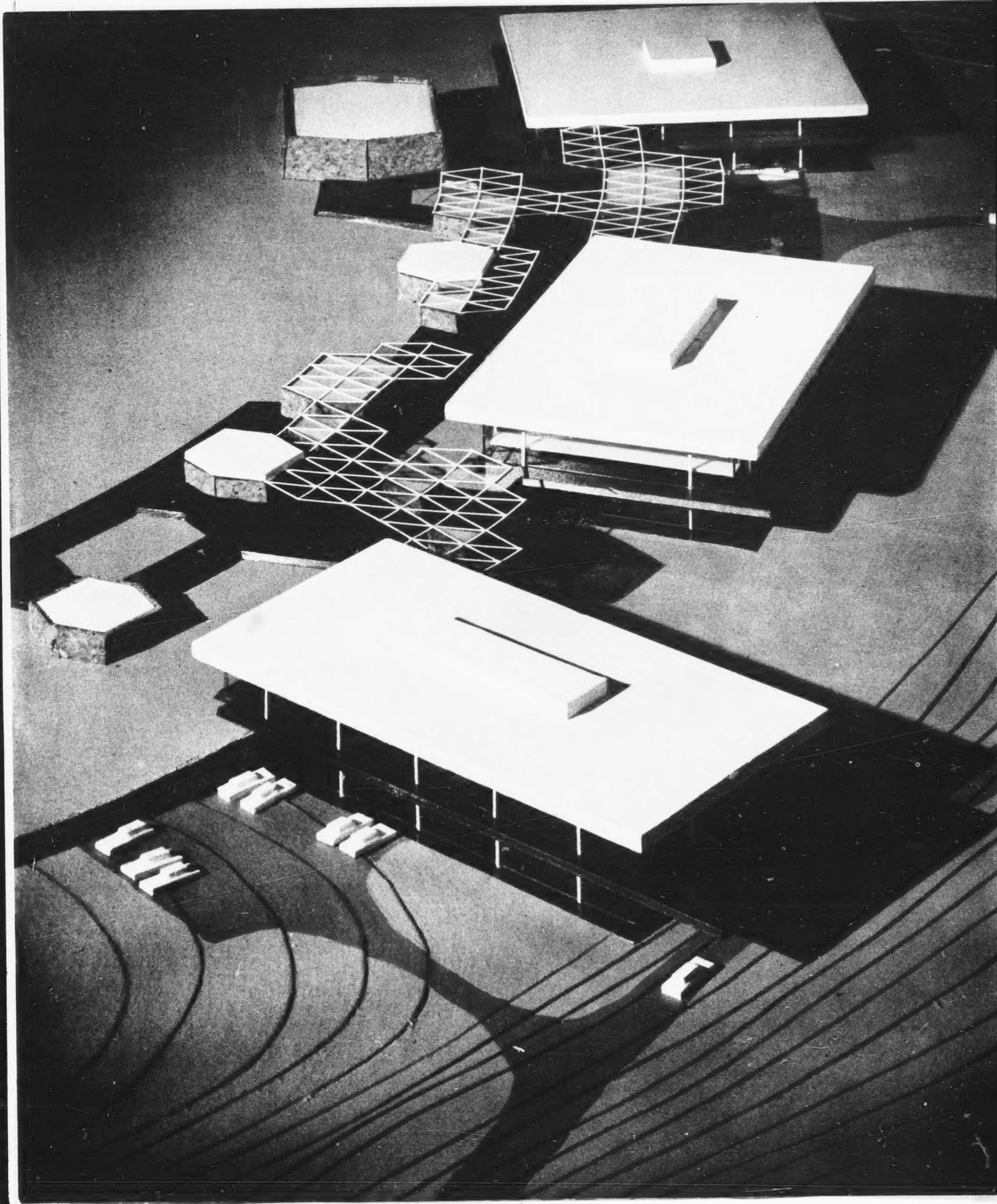
The three original major units – science, library, and student center – now are used by the functions for which they were designed. During Phase D, an applied arts unit is built (and fine arts expands into the space vacated by applied arts). Additional units for technology and agriculture are built, and two more units for physical recreation are added. A multi-floor building is started to provide new space for humanities and social sciences. Another student residence cluster for 200 students is built. Five houses for forty students each is clustered around a central dining unit with four dining rooms. The dining unit can be a cafeteria for 200 students or opened to serve 600 or serve 200 at a seated meal.

PHASE D

FOR 3000 STUDENTS – 1971-1977

A life sciences unit, another technology unit, and the fourth physical recreation unit are built. The upper floors of the multi-floor unit are completed. Two more student residence clusters are constructed, bringing the total number of students living on campus to 800. All facilities are now used with great efficiency. The total gross area per student has been dropping since Phase A and is now at a very attractive low. Additional growth will not appreciably effect the efficiency of space utilization.

There is little motive to grow beyond the 3000 enrollment, especially since the five counties are now exploring the possibilities of establishing additional colleges. The seed has been sown.



Section I

CHARLES WILLIAM BRUBAKER

Bill Brubaker came to the conference as a representative from the Chicago area. He and his student team presented a community college which was in character with the high standards for school architecture established by his firm of Perkins and Will. Mr. Brubaker is a partner and one of the individuals who has helped P&W earn its reputation as of the top firms in the United States for school design. started his education as an engineer at Purdue, but finis in architecture at the University of Texas. He is a qu analytical architect with superb artistic ability.

Section 2

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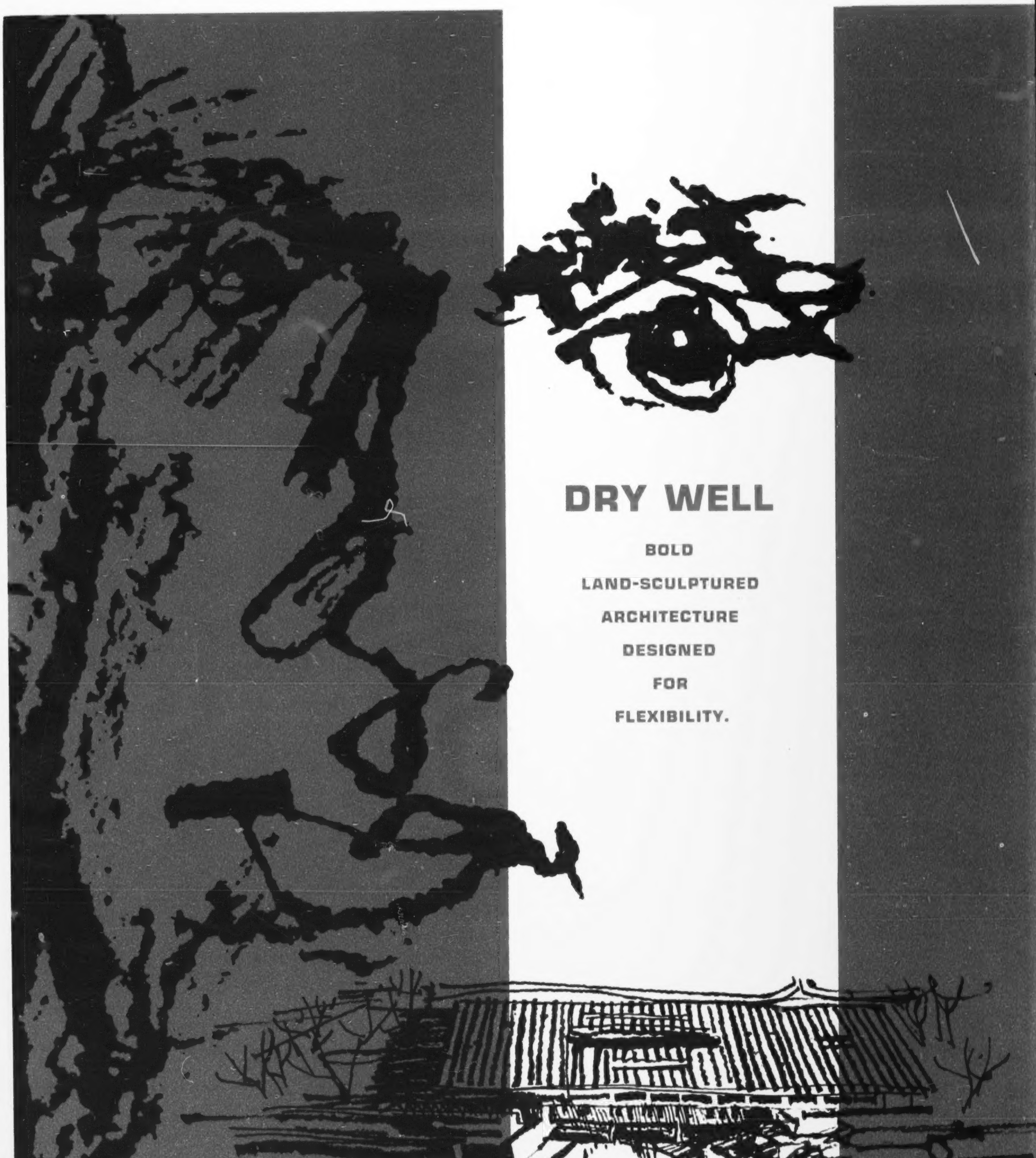
Brubaker, Pardue



DRY WELL

BOLD
LAND-SCULPTURED
ARCHITECTURE
DESIGNED
FOR
FLEXIBILITY.

Section I

Dry Well is a medium-sized community in eastern Texas with an approximate population of 30,000. The new community college will have a 60-acre campus and serve an area within a 60-mile radius. The community is surrounded by large acreage farms, and there is some petroleum industry in nearby areas.

The college has been fortunate during the planning stage to have the benefits of the advice and largesse of several wealthy citizens who envision a college with extensive library facilities, athletic facilities, a building for the creative arts, a separate guidance and counseling center and a non-denominational chapel for spiritual retreat.

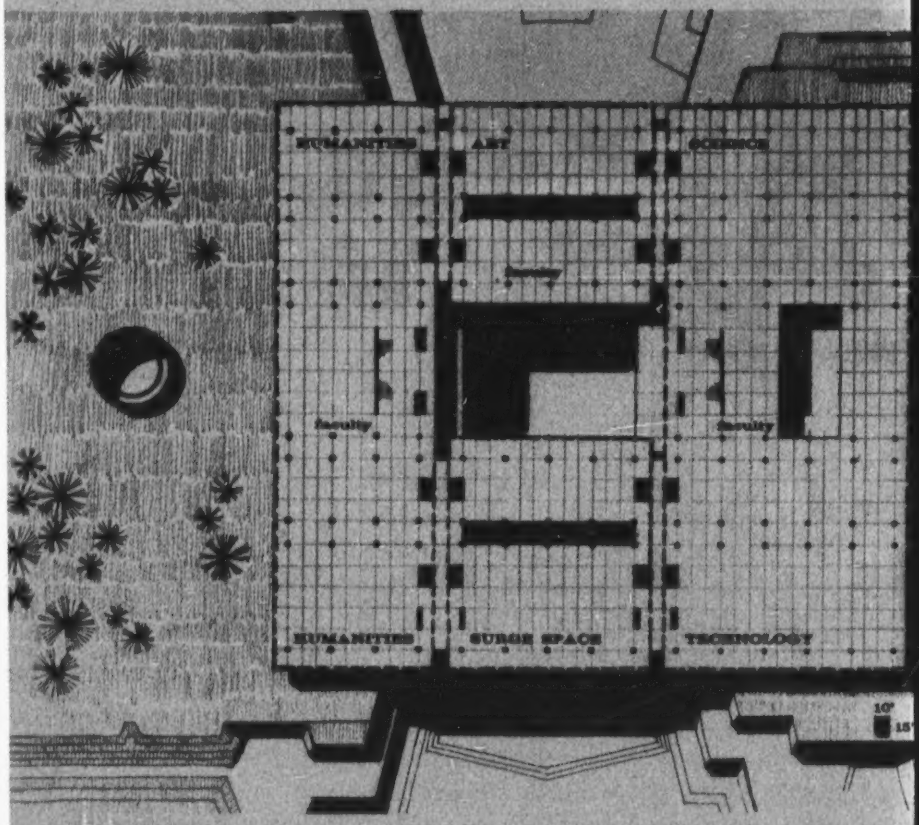
A small dormitory for men and a similar limited facility for women is to be constructed on the campus. Only about 100 of the initial student body of 1000 will live on campus. The school's enrollment may possibly triple within ten years. The faculty-student ratio is to remain about 1 to 22.

Even though the community college students tend to ascribe higher status to the transfer programs, facilities relating to the technical-terminal programs at Dry Well have received imaginative treatment in design, space and overall appeal.

SOLUTION The architect of Dry Well Community College has fitted the main building into the terrain by cutting into a rolling ridge. Into this cut is placed a three-level building whose spaces operate with emphasis on horizontal and vertical circulation. The concept is based on centralization, progressive growth and continual change.

Centralization of all academic and social facilities in one building intensifies and makes maximum use of the limited time each student spends in a commuting college situation. This high density concentration of facilities and students increases the contact opportunities and interchange of ideas and thoughts among students not only within the various fields of interest but also among students in different fields.

To meet the challenge of changes and variations in teaching techniques and in facilities, the structure allows great flexibility. A surge space, or unassigned blocks of teaching facilities, is available to allow the departments to either increase or decrease in size from year to year.



Level 3 teaching space

Section 2

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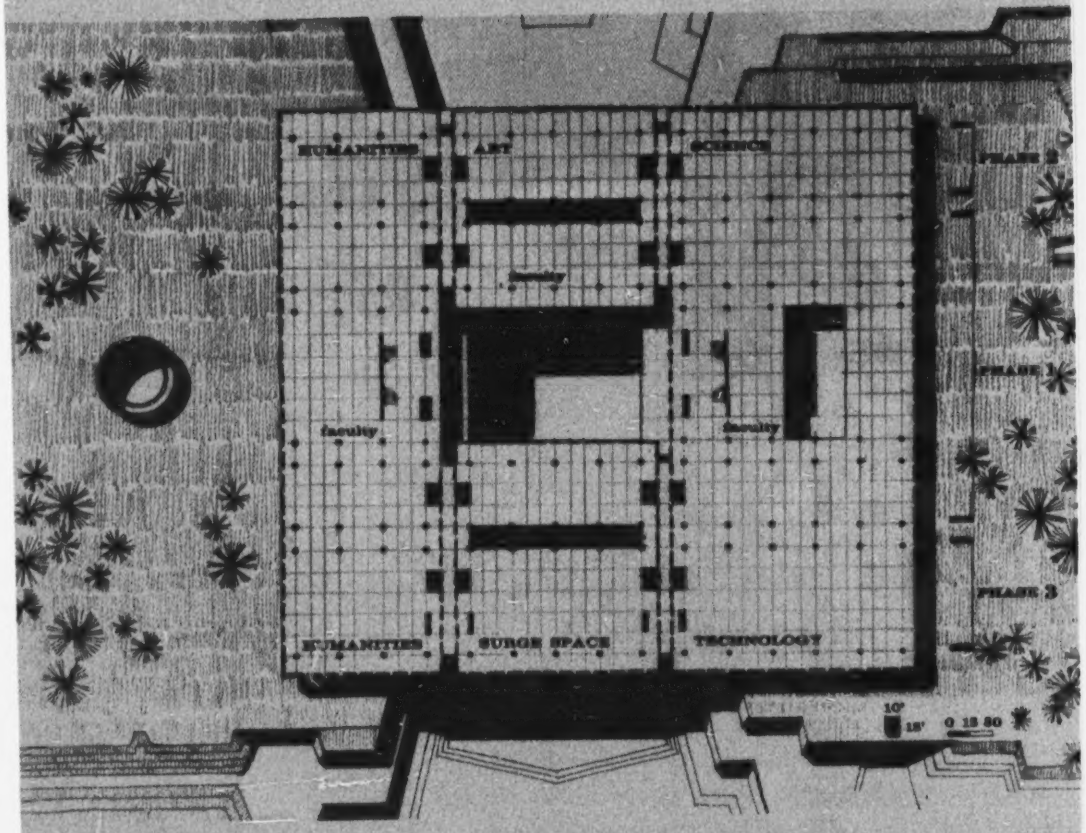


Level 3 teaching space

Growth is planned in three stages: first, for 1600 students; next, for 2400; and eventually for 3200 students. Each area within the college can expand in accordance with the expansion rate for each type of facility, from the constant rate of increase for teaching and faculty spaces to the diminishing rate needed for library space needed per student.

By grouping specific teaching spaces, laboratories and shops, subgrouping faculty offices and compartmentalizing their respective libraries, the structure achieves identity within each field—art, humanities, science and technology. However, the physical boundaries of these fields within the building are loose and linked to the shared use of common facilities and the centrality of circulation.

Teaching spaces are in the top level in the loft area, 45 to 90 feet bays. Closed and isolated arrangements or open arrangements are possible within the modular roof components. The classrooms are oriented toward the corridors and the faculty offices toward the court.

The middle level is the library-study level. It is focused upon the instructional materials center, which houses all types of educational material and equipment in an open stack, controlled space. Instead of conventional library reading tables—which take up to 60 per cent of the normal library's floor area—there are small, partially enclosed rooms containing lockers for ten to twenty students. Four to eight study carrels are included in each room. These rooms form a base point for the commuting students and provide a means of contact between first- and second-year students. On this level is the series of course instruction rooms which provide students with compendia of all related materials.

The chapel, circular in shape, is connected to the second level. It is set apart and rests in a circular space cut into the ridge.

The lower level contains a cafeteria for 500 students and two additional combination dining-teaching rooms for 250. The covered entrance area is suitable for outside activities.

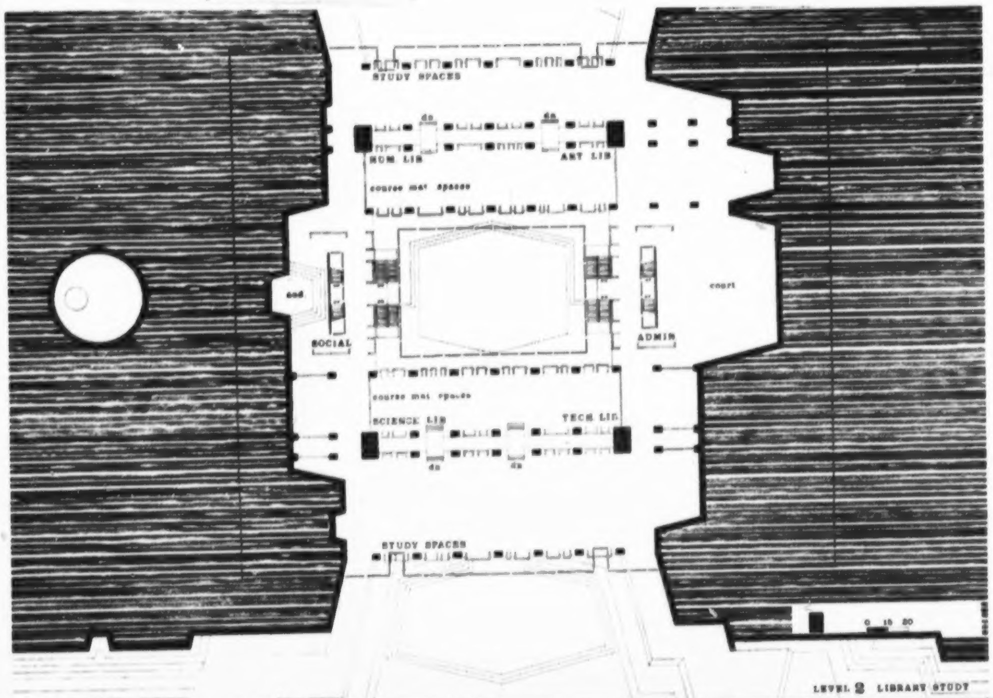
In such a centralized structure much cross-pollination of ideas, activities and loyalties occur. People see one another more often, and this offsets the transiency of commuting situations. Movement, the major factor in bringing people together, moves horizontally around the court and through vertical channels.

The physical education plant is an outdoor sheltered area with a locker building. The ridge is cut to provide protection from the prevailing north winter wind.

Parking lots for 3000 cars are located on the circular drive around the academic plant.

Section I

Level 2 library — study


STUDY SPACES
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HUM LIB
ART LIB
course mat spaces
sod
SOCIAL
court
ADMIN
course mat spaces
SCIENCE LIB
TECH LIB
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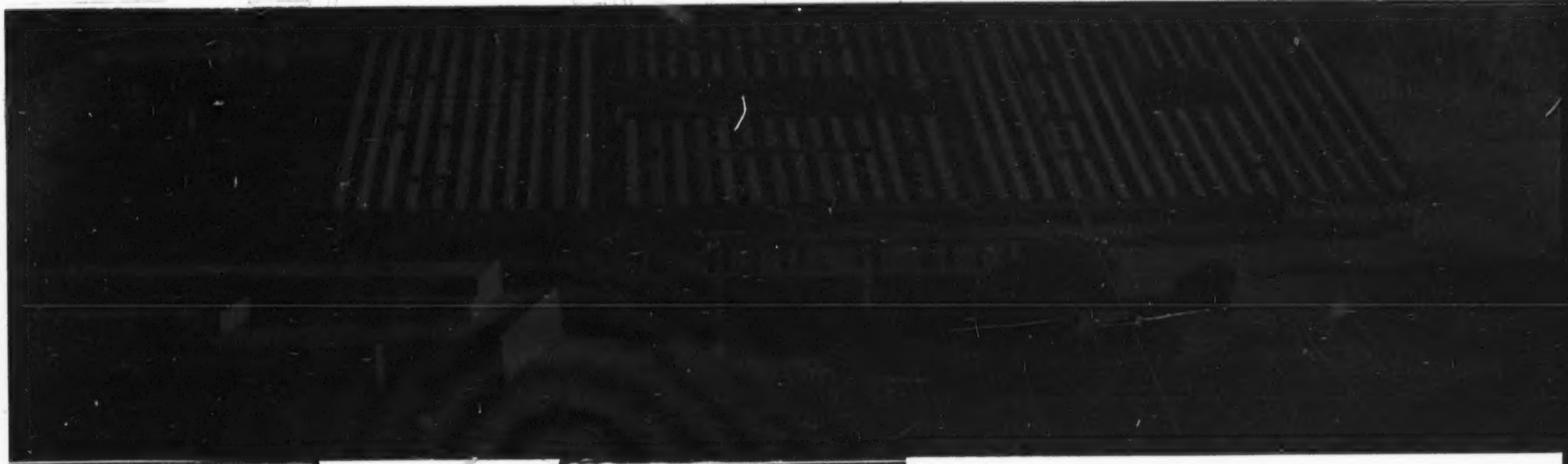
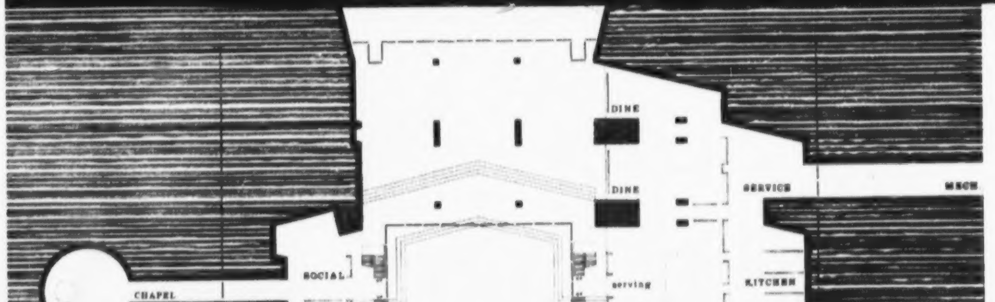
STUDY SPACES
0 15 30
LEVEL 2 LIBRARY STUDY




DINE
DINE
SERVICE
MECH
SOCIAL
CHAPEL
serving
KITCHEN
STORE
DINE TEACH
DINE TEACH
0 15 30
LEVEL 1 DINING-SOCIAL

Level 1 dining — social

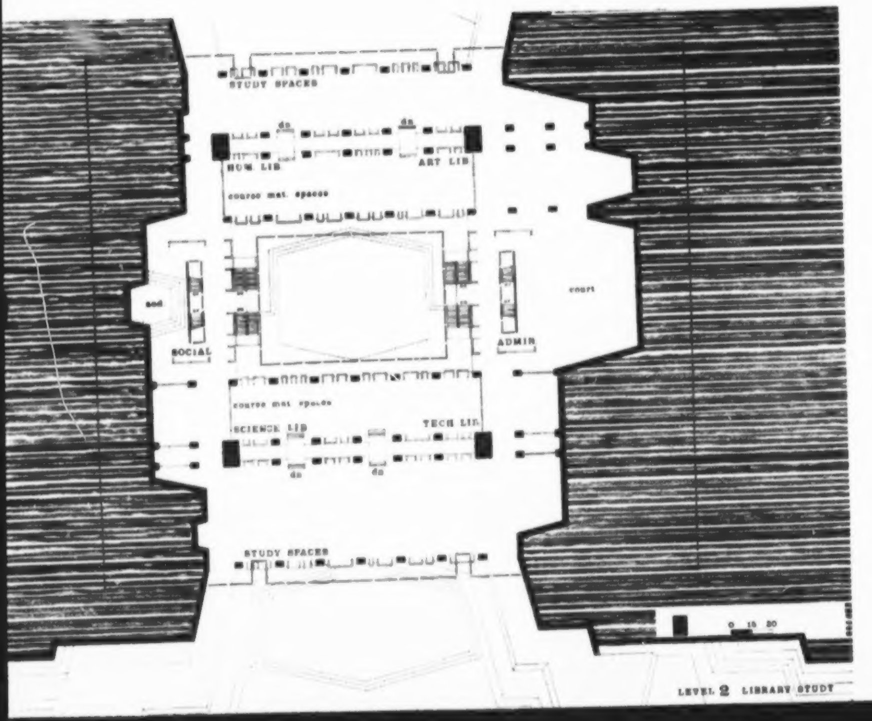
Dormitories for 100 students and faculty hous for 25 to 40 families are located at the western of the plot. A student motel was included for th commuting students who desire to remain overni after late classes. It is envisioned as being a c operated motel-dormitory.

In all, Dry Well comprises 300,000 sq. ft. of trolled, covered space. Nearly half is devoted to tea ing space which achieves 70 per cent utilization a nine-hour day. The library spaces, including course environment rooms, aggregate 17,000 sq Study and social rooms total 42,000 sq. ft., and space devoted to dining and service totals 31,000 ft.; the faculty and administration space is alloca 25,000 sq. ft.

The building is placed parallel to a rolling ri running through the site. Eight, one-story, Vierend concrete trusses span the cut through the ridge support the library and academic levels. The th

Section 2

Level 2 library — study


STUDY SPACES
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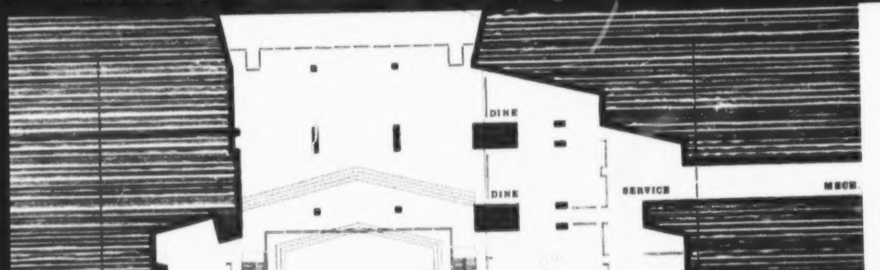
STUDY SPACES
0 10 20
LEVEL 2 LIBRARY STUDY


DINE
DINE
SERVICE
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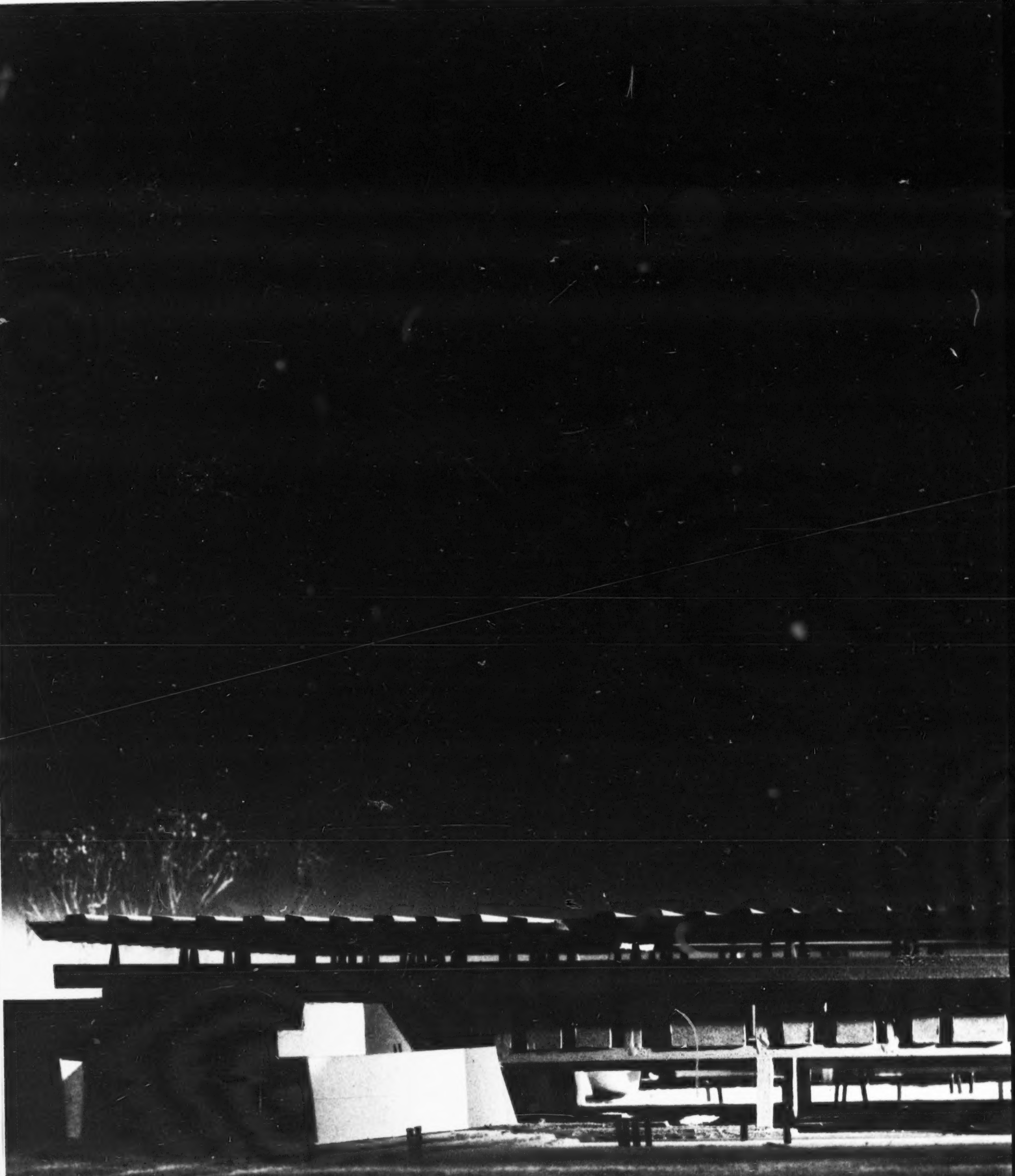
KITCHEN
CHAPEL
STORE
DINE-TEACH
DINE-TEACH
0 10 20
LEVEL 1 DINING-SOCIAL

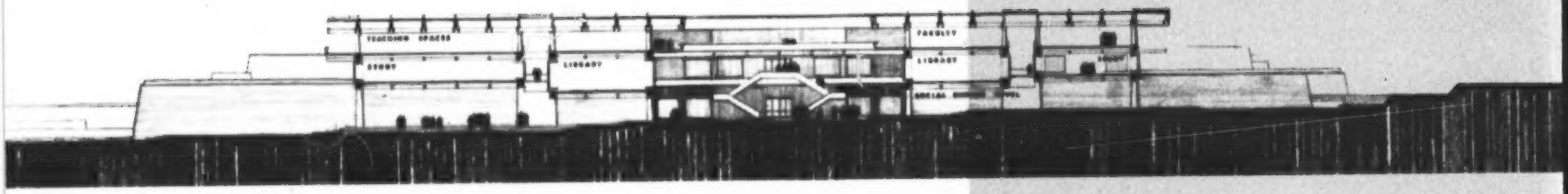
Level 1 dining — social

Dormitories for 100 students and faculty housing for 25 to 40 families are located at the western end of the plot. A student motel was included for those commuting students who desire to remain overnight after late classes. It is envisioned as being a coin-operated motel-dormitory.

In all, Dry Well comprises 300,000 sq. ft. of controlled, covered space. Nearly half is devoted to teaching space which achieves 70 per cent utilization over a nine-hour day. The library spaces, including the course environment rooms, aggregate 17,000 sq ft. Study and social rooms total 42,000 sq. ft., and the space devoted to dining and service totals 31,000 sq. ft.; the faculty and administration space is allocated 25,000 sq. ft.

The building is placed parallel to a rolling ridge running through the site. Eight, one-story, Vierendell concrete trusses span the cut through the ridge and support the library and academic levels. The third





Longitudinal cross section

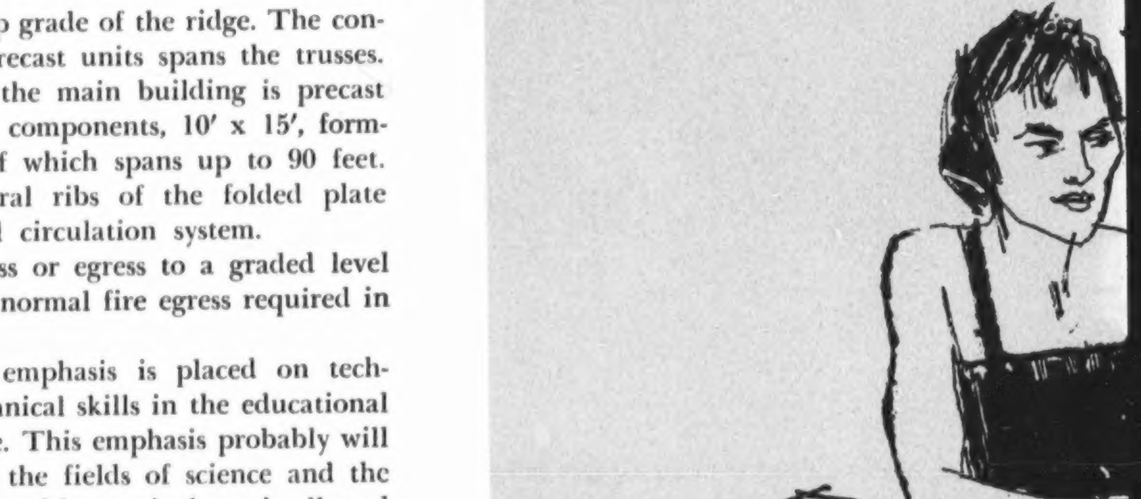
level is added to the top grade of the ridge. The concrete floor system of precast units spans the trusses. The roof structure of the main building is precast post-tensioned concrete components, 10′ x 15′, forming a folded plate roof which spans up to 90 feet. The secondary structural ribs of the folded plate enclose the mechanical circulation system.

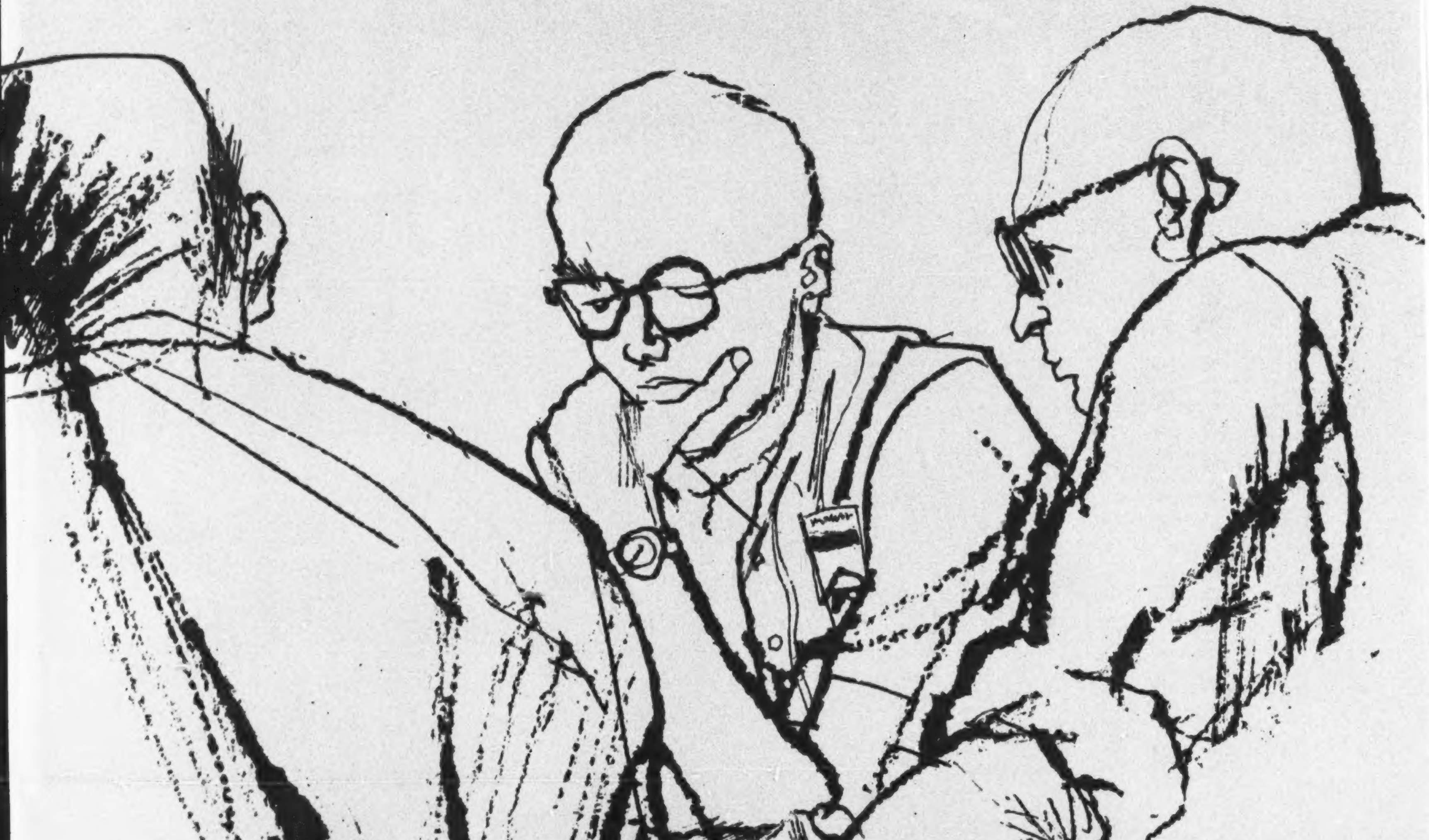
Each level has access or egress to a graded level obviating the need for normal fire egress required in multi-story structures.

A slightly greater emphasis is placed on technology and related technical skills in the educational program for the college. This emphasis probably will shift gradually toward the fields of science and the humanities. Space for teaching agriculture is allotted but is not blocked out into teaching units.

At present the community can utilize a college for 1600 students. Night school enrollment will increase the total use of this college by approximately one half the day enrollment. This will continue to be the case in twenty years when day enrollment reaches the anticipated maximum of 3200.

Educational content, technique and space will change in the future more rapidly than it has been changing in the recent or distant past. Complete freedom must exist in the course structure, scheduling and variation of subject matter; and the buildings envisioned for Dry Well Community provide this freedom by providing vertical and horizontal flexibility in a structure with individual units conceived for centralization, progressive growth and change.



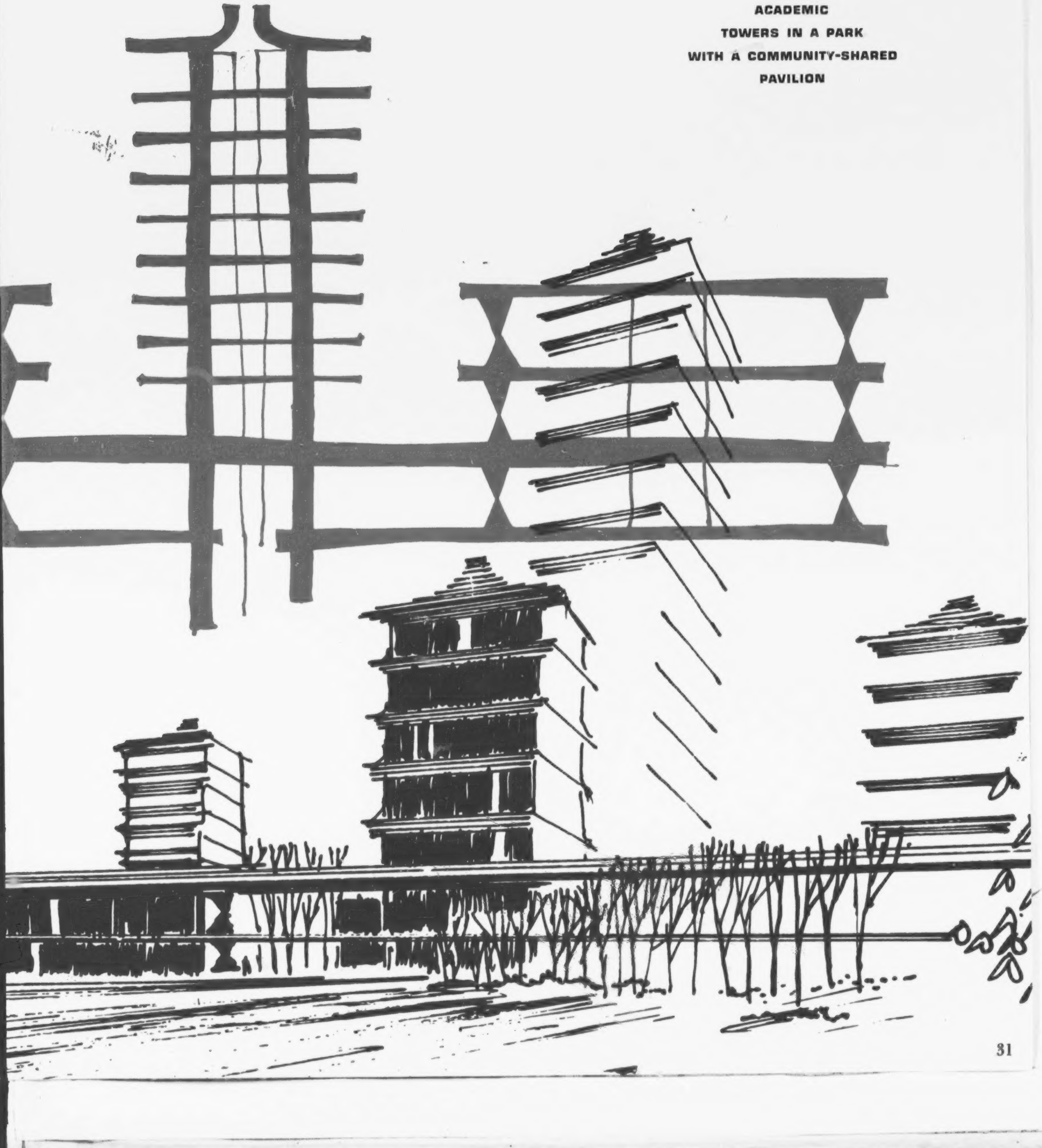


ARCHITECT: JOE SCHIFFER

Joe Schiffer is the Bostonian who very appropriately drew the college for Dry Well, Texas. He is in private practice in Concord, Massachusetts, and a professor in the Department of Architecture, Massachusetts Institute of Technology. He is currently in charge of the M.I.T. Experimental School in Architecture. Friendly, subtle and sincere, Mr. Schiffer managed to have his student team produce a phenomenal amount of work and do the impossible by completing a detailed, oversized (6′ x 8′) model during the last three days.

PALMOPOLIS COMMUNITY COLLEGE

ACADEMIC
TOWERS IN A PARK
WITH A COMMUNITY-SHARED
PAVILION



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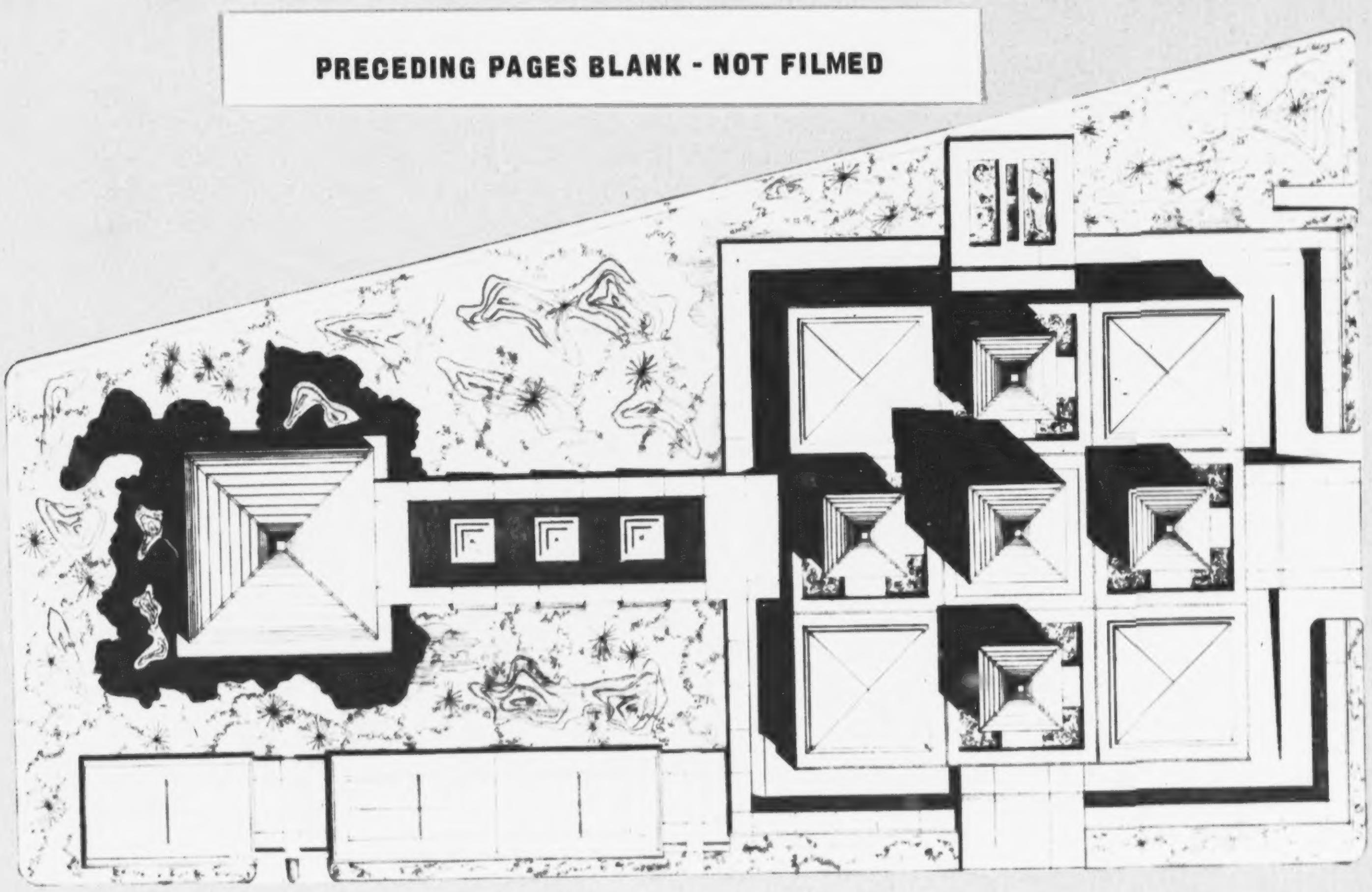


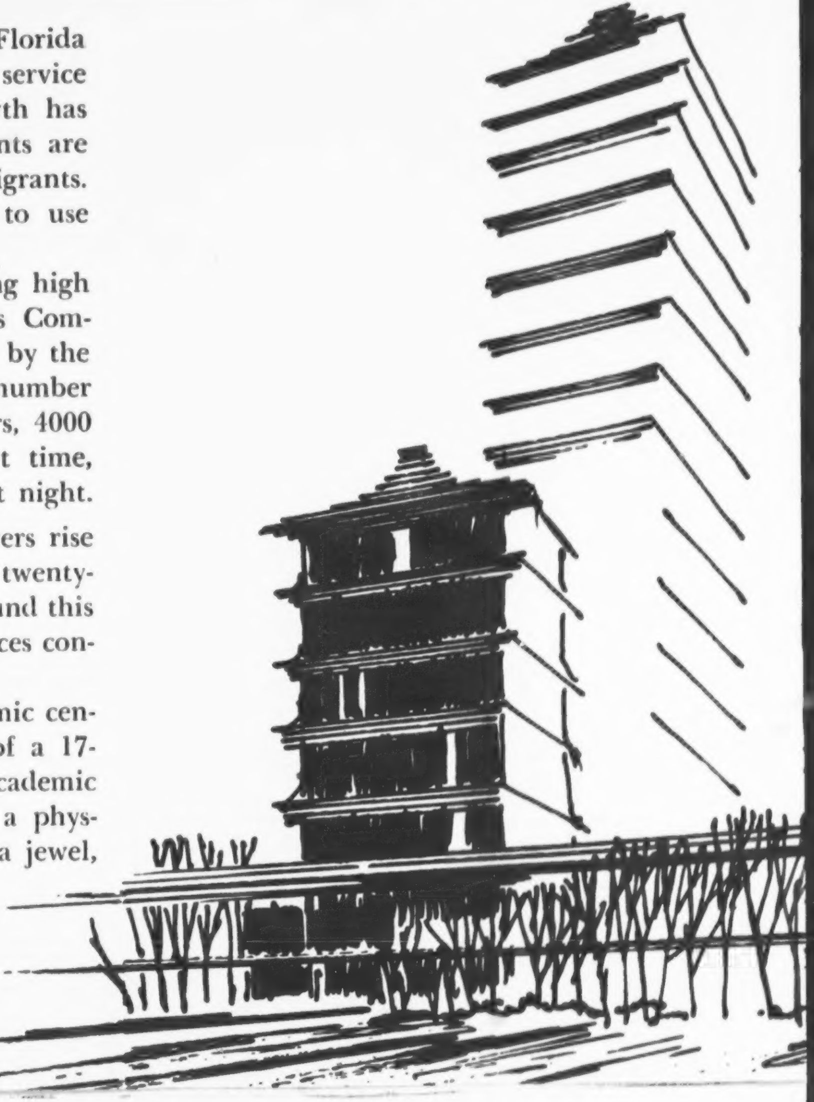
Site plan

Palmopolis is a densely populated city in southern Florida in the year-round resort area. Light industry and service occupations are developing and the population growth has raised land values extremely high. Many new residents are retired. There has been an influx of Cuban immigrants. Inadequate public transportation forces commuters to use private autos, hence parking is a municipal concern.

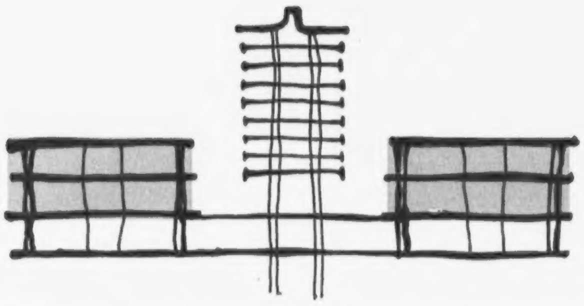
Within three years over 50 per cent of the graduating high school seniors in the county will attend Palmopolis Community College. Adult education will also be pursued by the retired residents. The first class of freshmen will number 1200, half will be full time. By the end of two years, 4000 students will be enrolled: 1200 full time, 2800 part time, plus 2000 taking non-credit adult education courses at night.

SOLUTION The Palmopolis Community College towers rise out of a park in the heart of downtown amid ten- to twenty-story apartment and office buildings. A green belt around this small 6½ acre campus was created by a series of terraces connecting the city park to the campus landscaping.

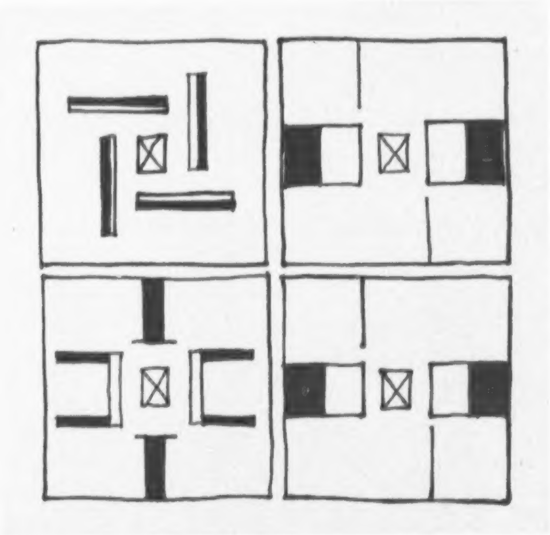
The two basic elements of the campus are the academic center and the pavilion. The academic center consists of a 17-story central administrative tower, four nine-story academic towers, four two-level laboratory-shop buildings and a physical education building. The pavilion, set apart like a jewel, is an auditorium and exhibition hall.



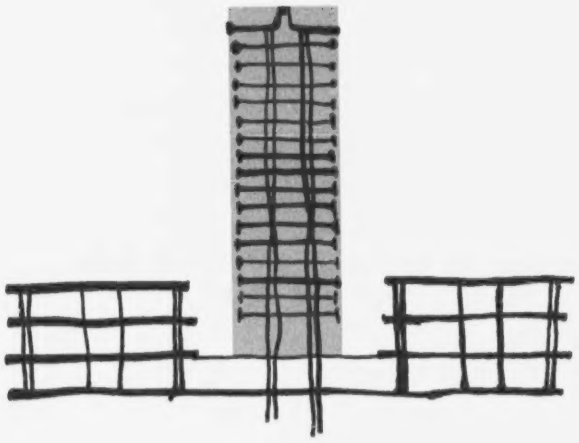
Section I



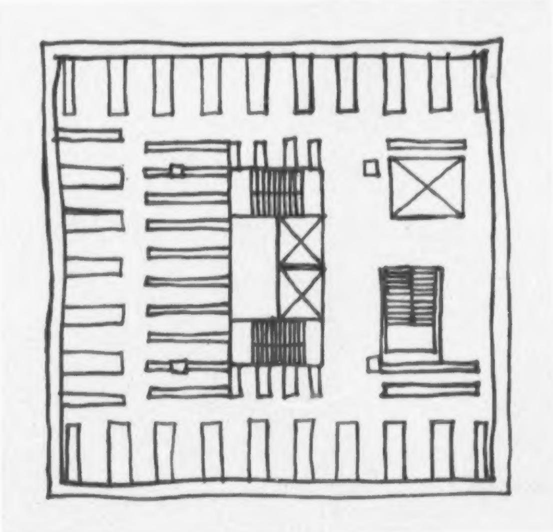
LABORATORY-SHOP BUILDINGS: The two-level laboratory-shop buildings are accessible by exterior circulation to leave the interior free for greater flexibility. Each building is amenable to any division, separation or arrangement. Each of the four laboratory-shop buildings can be divided into two, four or six laboratory areas for teaching any subject. The basement level, which runs under the entire tower cluster and provides space for all the service ducts from the main plant, contains all the heavy equipment shops, the main power plant and all physical education facilities except the tennis courts which are located outside above the parking area.



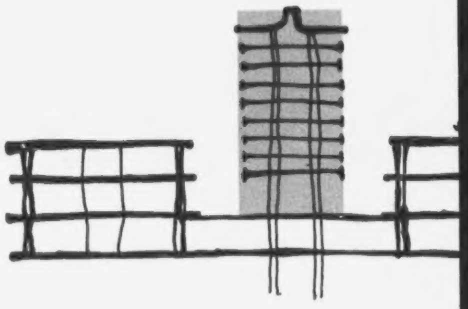
Floor plans — shops and labs, concourse level



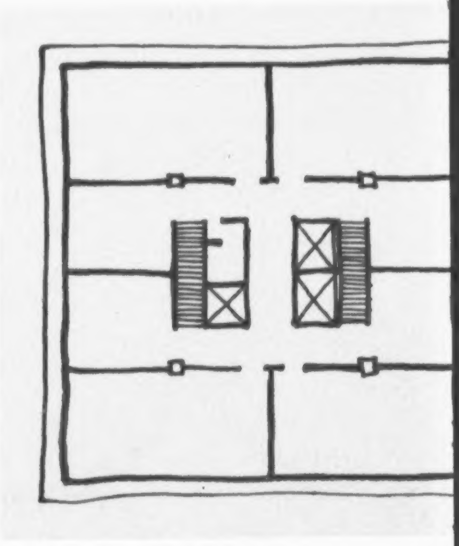
ADMINISTRATIVE TOWER: The 17-story central tower rests on a covered concourse which provides shelter from the seasonal hurricanes, rain and tropical sun. On this concourse in the center of the complex is the cafeteria and kitchen; the kitchen connects to the faculty dining room on the next level. The middle six levels are the central library which is sandwiched between three levels for faculty and administration below and three levels for study space and carrels for the students above. The student store and lounge on the top level pull the students in from the four academic buildings and increase the interchange among students and faculty. A central service core houses the mechanical ducts, elevators, stairs and corridors and channels the circulation on the interior to allow maximum usage of peripheral windows overlooking the cityscape.



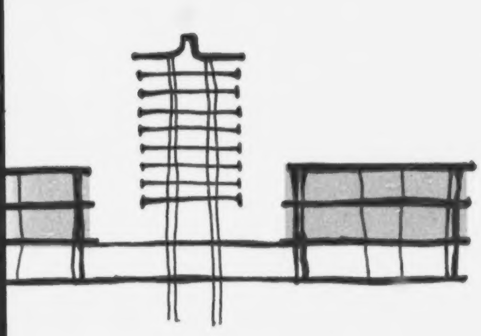
Typical library floor plans



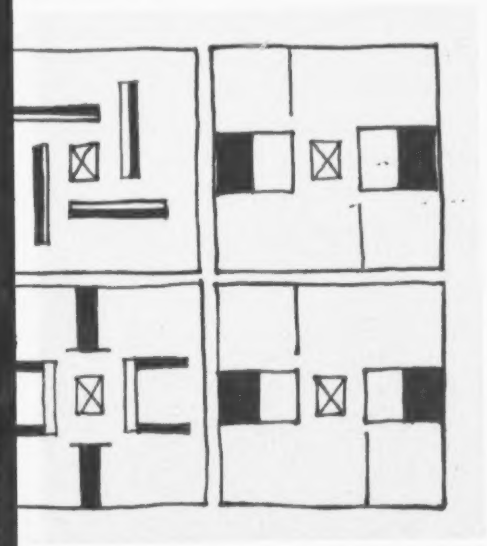
ACADEMIC TOWERS: The subject departments are located in four a towers. Each has its own study erence library for students, and off lounges for faculty. The student are on the top levels, and student places are on the ground level. T chanical equipment and circulatio central cores, just as in the admin tower. All classrooms have window peripheral walls, and the rooms are size to accommodate small group tion, i.e., lectures, seminars and di groups. Students go to the admini building to use the main library, t store and study carrels.



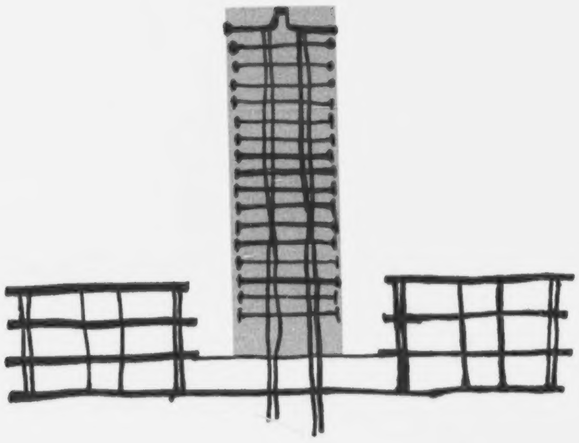
Typical classroom floor plan



ATORY-SHOP BUILDINGS: The two-
boratory-shop buildings are accessi-
exterior circulation to leave the
free for greater flexibility. Each
g is amenable to any division, sep-
or arrangement. Each of the four
ory-shop buildings can be divided
vo, four or six laboratory areas for
g any subject. The basement level,
runs under the entire tower cluster
ovides space for all the service ducts
he main plant, contains all the heavy
nent shops, the main power plant
physical education facilities except
nis courts which are located outside
the parking area.



ns — shops and labs, concourse level



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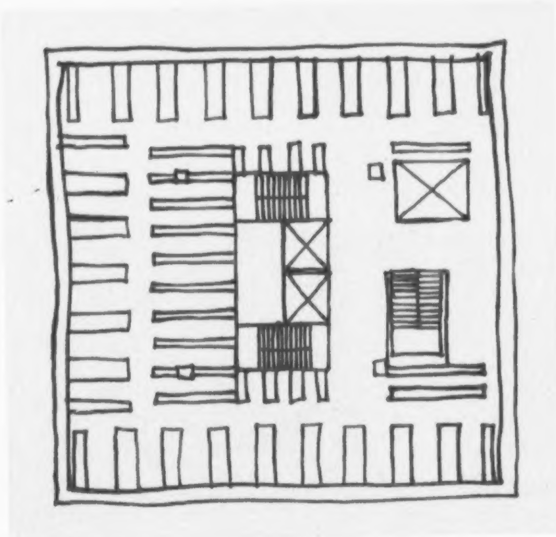
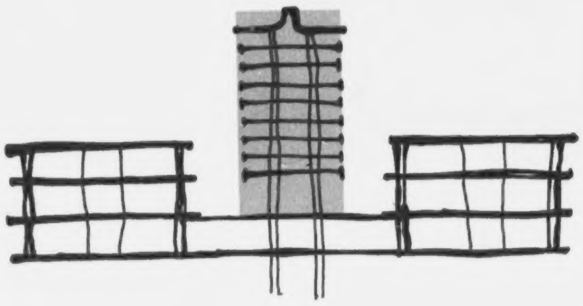


Typical library floor plans



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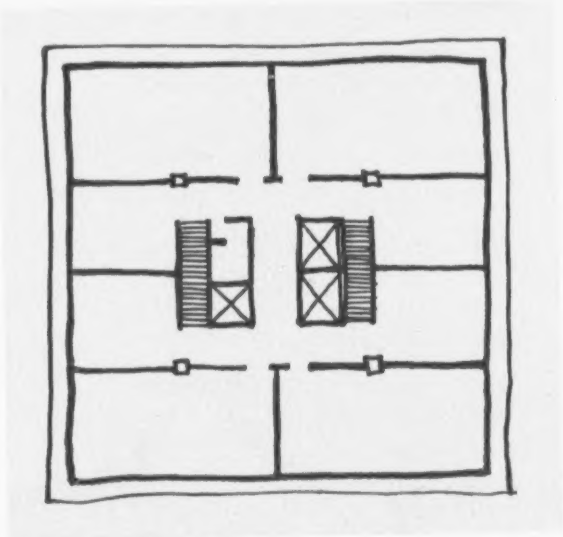


Typical classroom floor plan

Section I

The exhibition hall and auditorium is located on a man-made lake in the campus park. They are connected to the main complex by an elevated platform. A park-like atmosphere pervades the pavilion itself. On the main level is an exhibition hall for both student and community use. Social functions are held here as well as exhibits. The auditorium seats 900 to 1000 persons and is readily available to the community. Here, in the exhibit hall and auditorium, the community and its college come together.

The green belt formed by the college and city parks is vital to the campus. It creates a serene environment for thinking and meditation, a place which encourages the part time student to remain on campus; and where apartment residents and office workers may also come. It is a step toward fusing the identity of the college with the identity of the community.

Parking facilities for the entire campus are situated underground and have covered access to the campus. This conserves land and protects cars and occupants during bad weather. Guest parking is adjacent to a major street. The student cars may enter from the major street that parallels heavily traveled Palmopolis Boulevard.

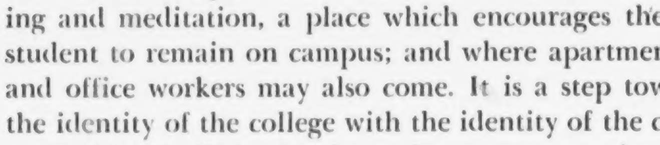
The campus is completely air conditioned with a central chilled water system connecting with each building. Each building has its own air handling unit. The electrical distribution system is also centralized and uses the same tunnels as the air conditioning. The cooling tower for the air conditioning is concealed beneath the reflecting pool.

The precast concrete columns in pyramidal shapes, pin connections at midpoint, are a unique structural fe The construction of the towers is a cantilever system fro central cores. The laboratory buildings are clear-span and beam type using 90-foot, pre-stressed, post-tensioned b Weather, salt air conditions and building code restri dictate the use of concrete. Concrete material cast wit local coral shell makes a good texture and gives the con tion an indigenous character. All window metal is br Roofs over the pavilion and top roof of the tower are co

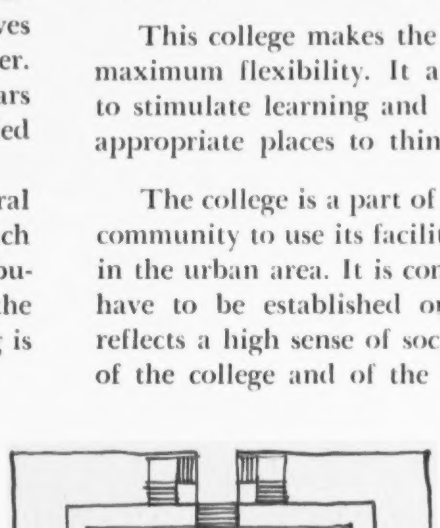
Total area of Palmopolis Community College is 30 feet, of which the central administrative tower com 100,000 sq. ft., the academic towers, 38,000 sq. ft., the la tory-shop building, 64,800 sq. ft., the physical education 73,000 sq. ft., and the pavilion, 30,000 sq. ft.

This college makes the greatest possible use of space maximum flexibility. It attempts to create an environ to stimulate learning and teaching, where students will appropriate places to think and to study.

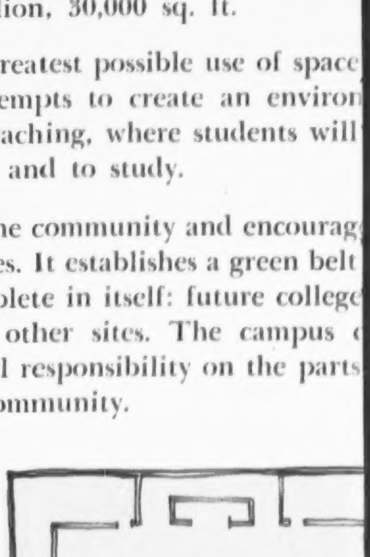
The college is a part of the community and encourag community to use its facilities. It establishes a green belt in the urban area. It is complete in itself: future college have to be established on other sites. The campus reflects a high sense of social responsibility on the parts of the college and of the community.



Section through pavilion



Pavilion, upper level exhibition



Pavilion, lower level theater

Section 2

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Total area of Palmopolis Community College is 306,000 feet, of which the central administrative tower comprises 100,000 sq. ft., the academic towers, 38,000 sq. ft., the laboratory-shop building, 64,800 sq. ft., the physical education unit, 73,000 sq. ft., and the pavilion, 30,000 sq. ft.

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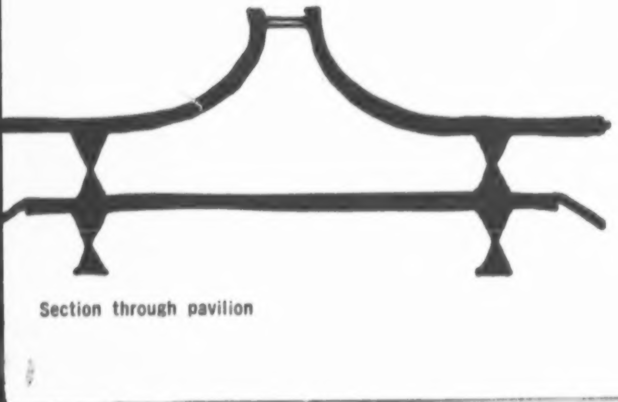
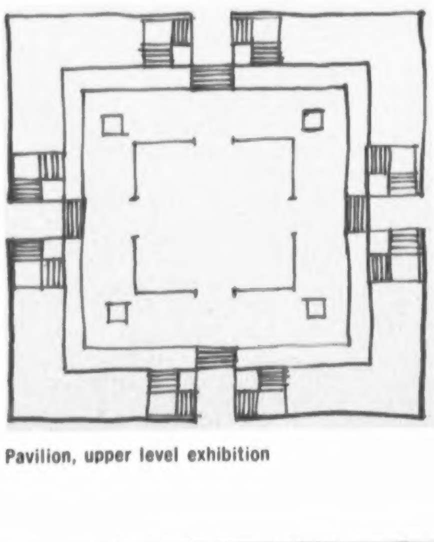
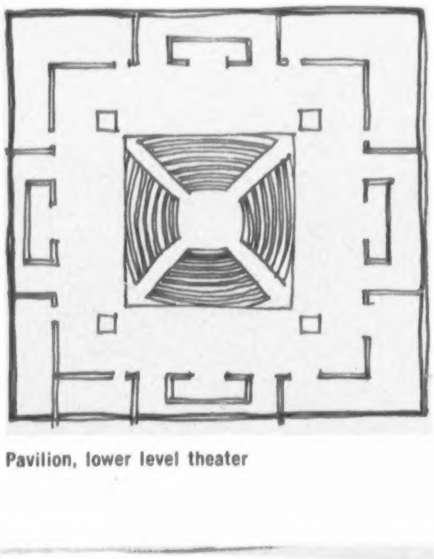
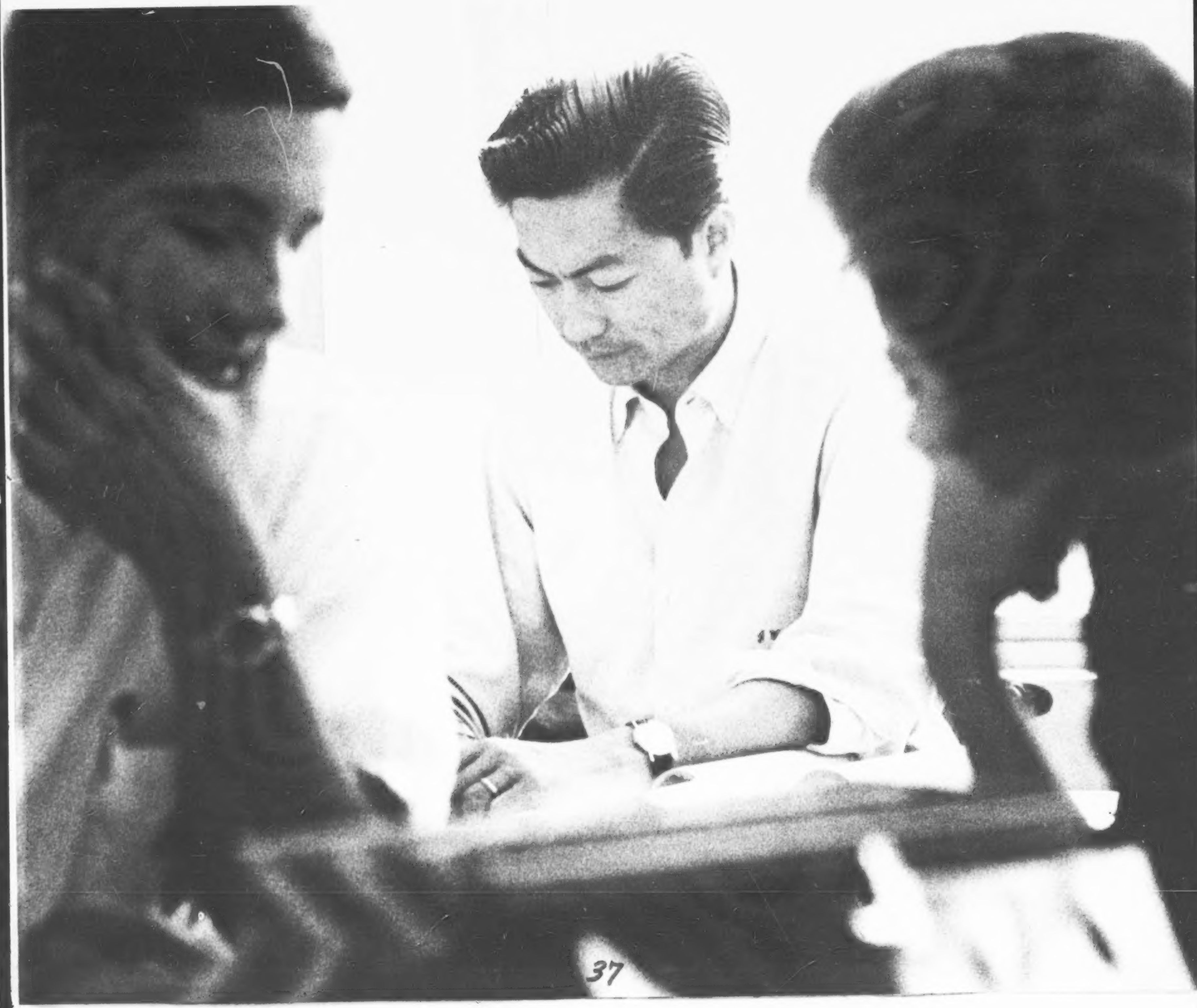

Section through pavilion

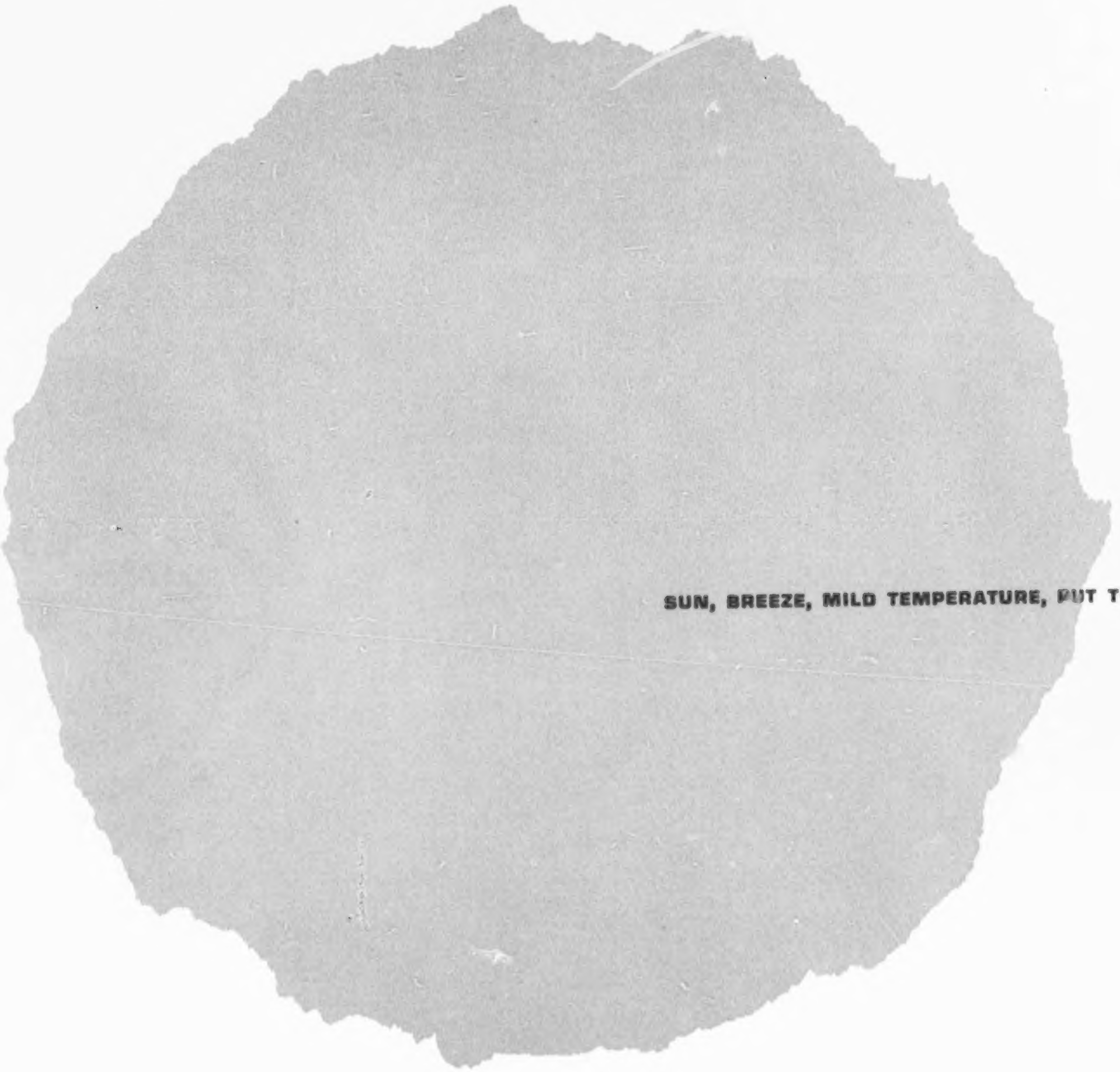

Pavilion, upper level exhibition


Pavilion, lower level theater

GIN WONG

Gin Wong, a partner in William L. Pereira & Associates, described his office in Los Angeles to his student team. They, in turn, located a rug and lamps to add that personal touch to his corner of the drafting room to make him feel "at home." He responded by designing a highly sophisticated and appropriately urbane college. Mr. Wong has been associated with Pereira since 1950 and been in charge of design for such projects as Occidental Center, U.S.C. Olin Hall of Engineering, U.S.C. Biological Sciences Research Laboratory, Union Oil Center, Los Angeles International Airport, Astropower Research & Development Center, and Hoffman Science Center. He attended the University of Southern California, Los Angeles City College and James Milliken University.



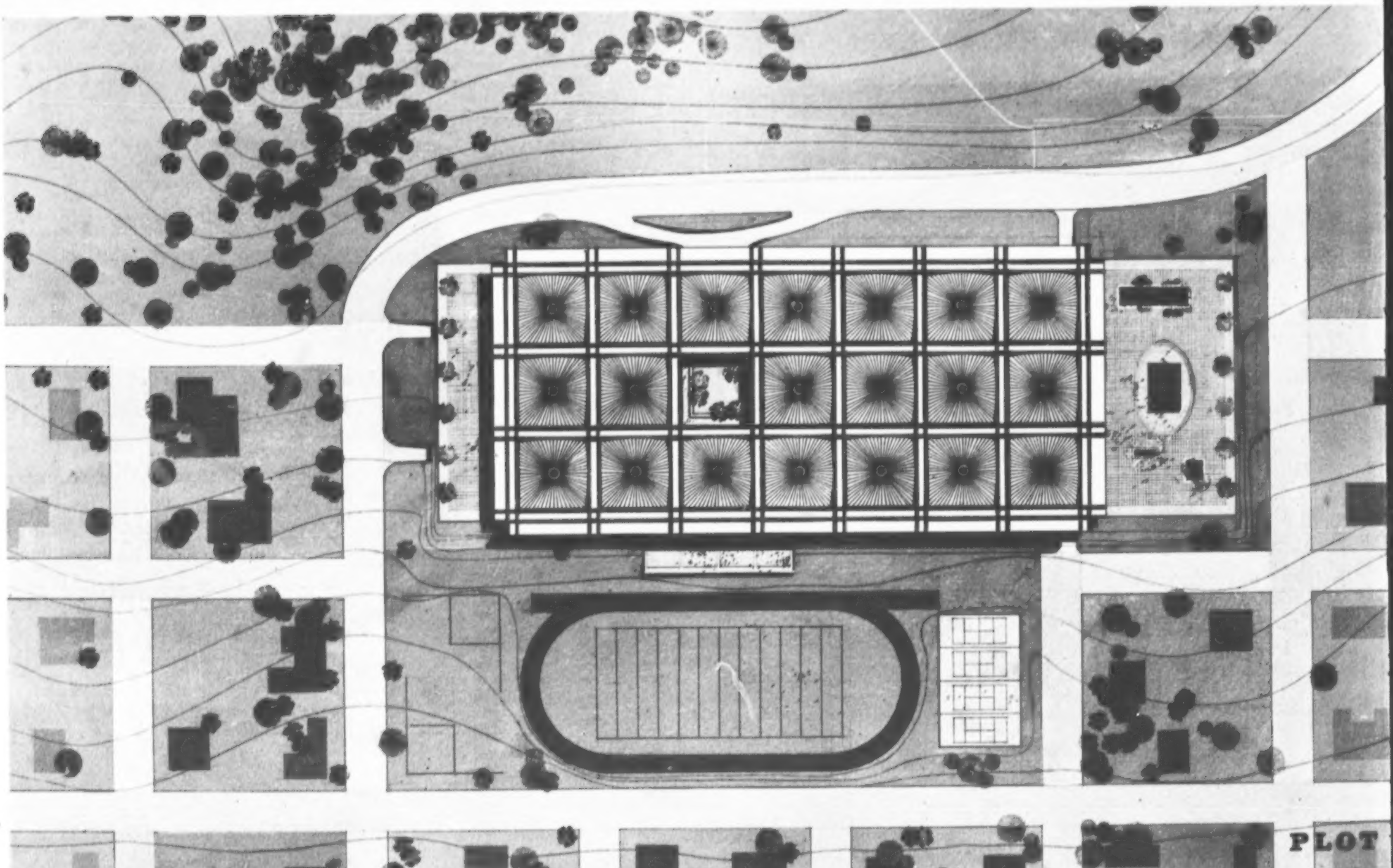


SUN, BREEZE, MILD TEMPERATURE, PUT TO WORK FOR EDUCATION

Section I

SAN LOS

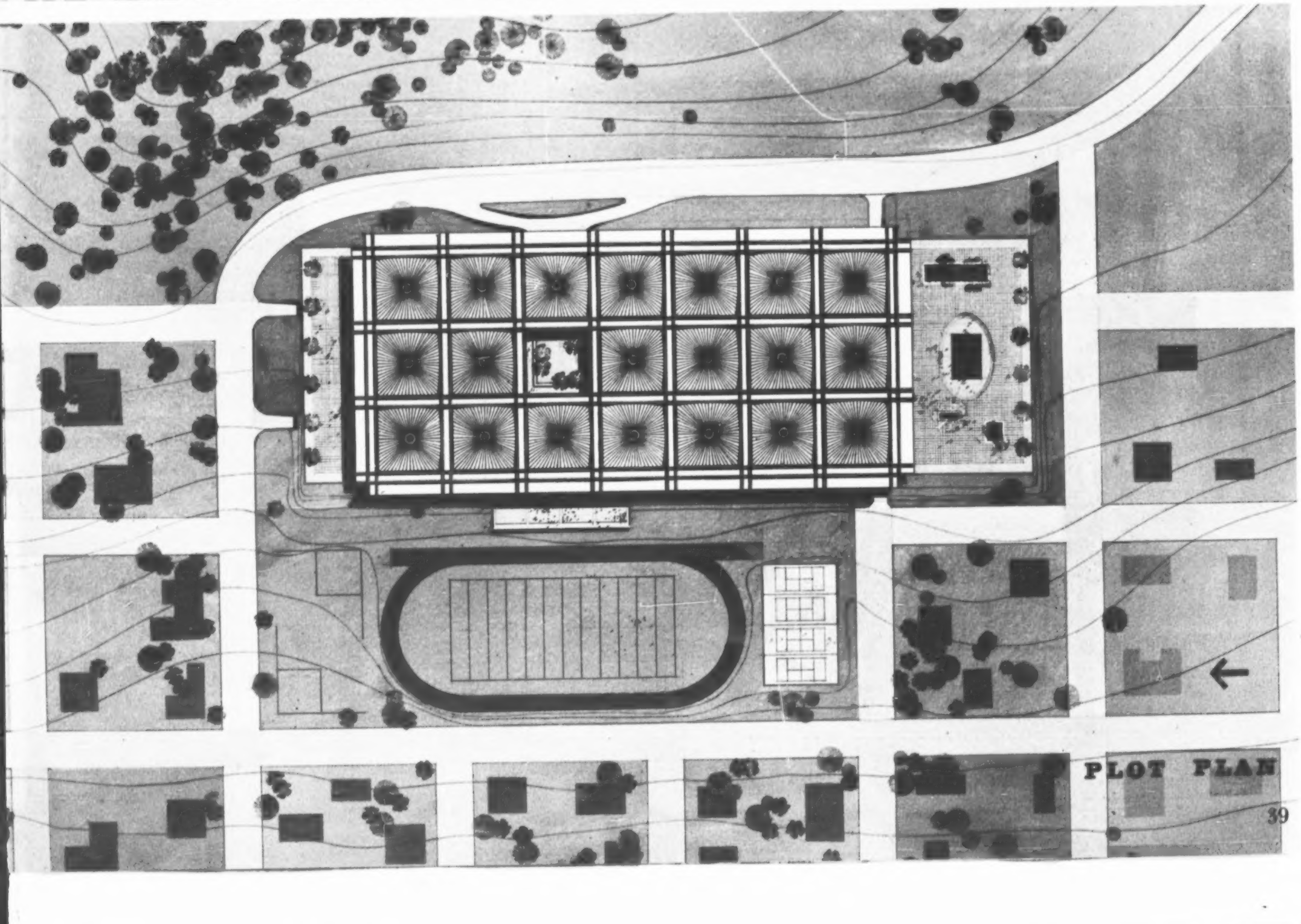
A LOW COST ($8/SQ. FT.) SCHOOL WITH CEILING-LESS CLASSROOMS UNDER A LOFTY UMBRELLA

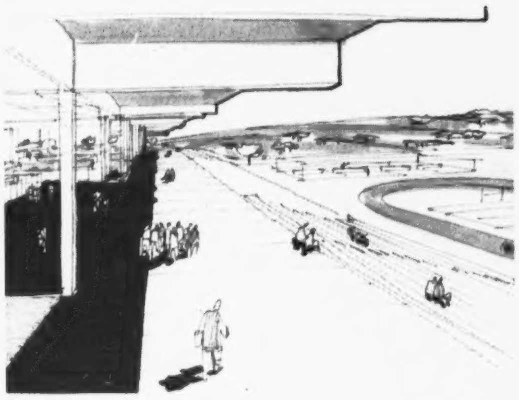


Section 2

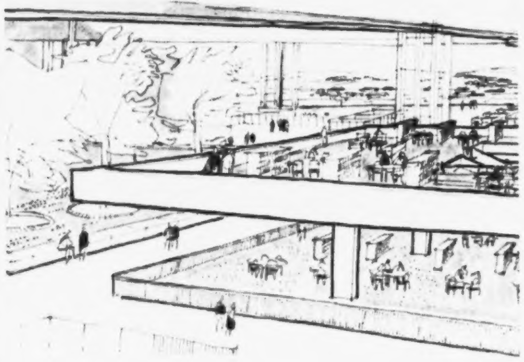
AN LOS

A LOW COST ($8/SQ. FT.) SCHOOL WITH CEILING-LESS CLASSROOMS UNDER A LOFTY UMBRELLA

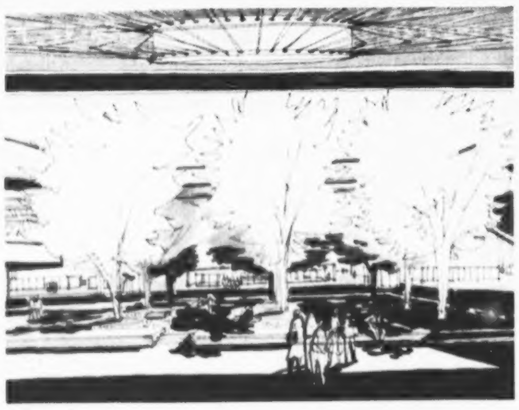




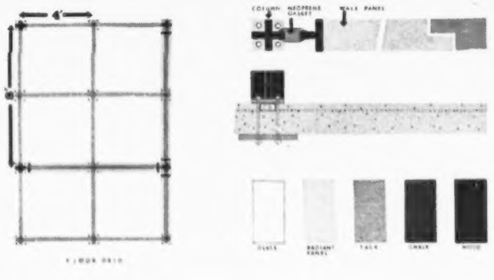
View — looking toward sports stadium



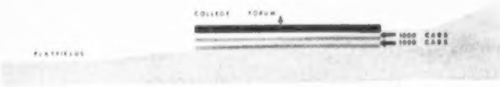
View — looking toward library



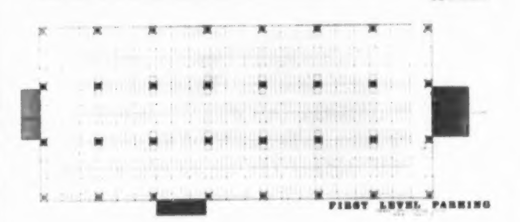
View — looking toward interior court



Interchangeable wall system



Section — parking



Floor plan — upper level parking

SAN LOS is a city of nearly 400,000 population adjacent to a metropolitan area of over 2,000,000 on the west coast. It is in transition from an agricultural and suburban area to a community of light industry and business. Offices of insurance companies, publication firms, utilities firms and electronic corporations have been moving into the area, and research and development industries are beginning to locate in San Los. As a result of this influx, the number of persons commuting to the city has declined, while the number employed within the area has increased. Public transportation is poor.

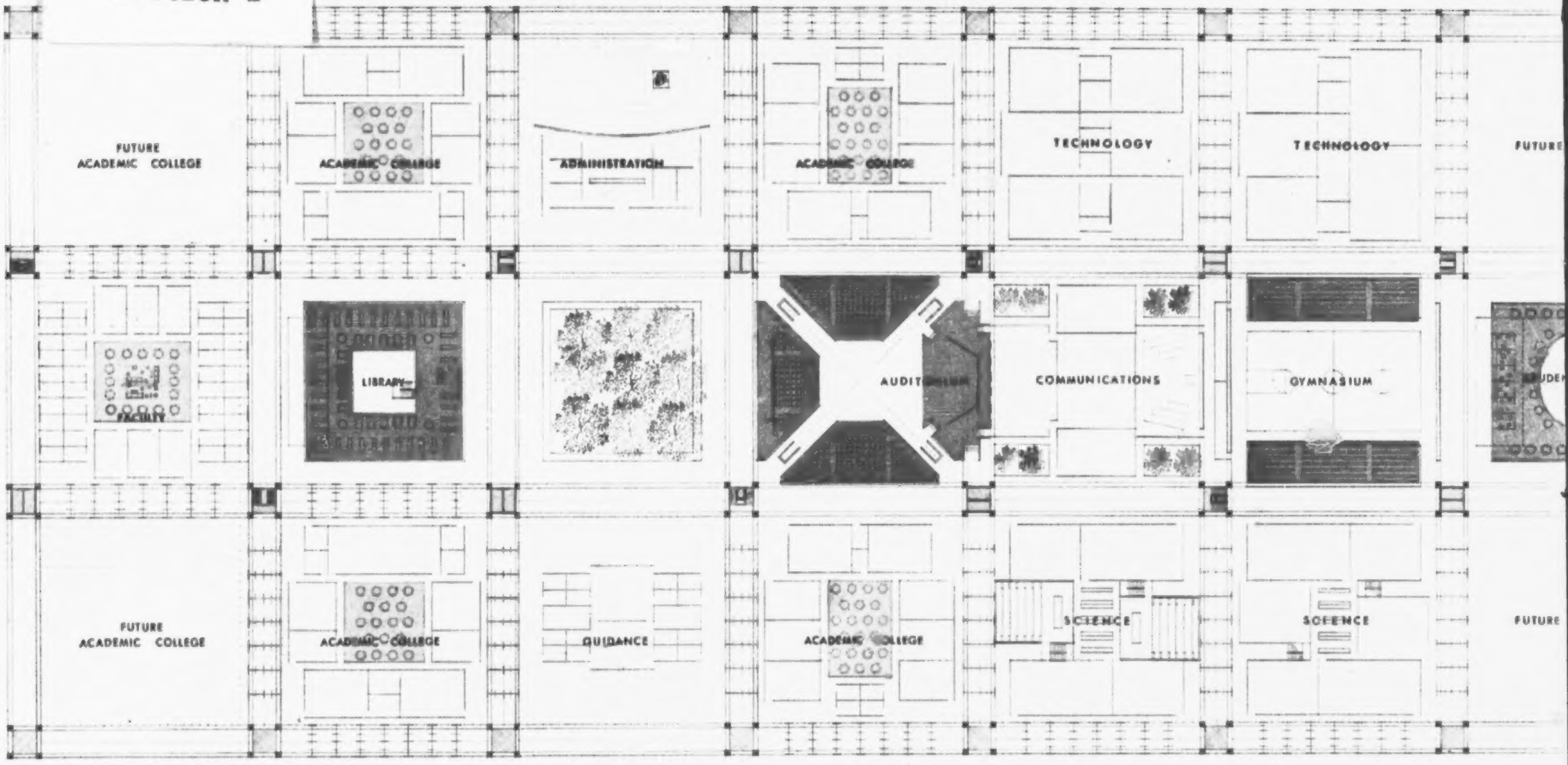
San Los ranks 15th in the United States in per capita income, and nearly everyone expects to attend college. The population is rather homogeneous. Within about three years, the enrollment at San Los Community College will rise to 3500 or slightly more. By the end of its second year of operation 2700 students will be enrolled. About two thirds of the entering students intend to transfer to a senior institution after they complete two years' work. About half the students will come from outside the San Los Community College district by automobile but from not more than 15 or 20 miles from the college.

San Los will have an extended day division in general education, lower division transfer education and the technical-vocational courses. During the college's second year, the extended day division will add an adult education center, which will enroll nearly 4000 students and offer them approximately 140 adult education courses.

Total faculty, both full time and part time, will number about 160. About 100 will teach during the regular day sessions, and 60 during the extended day programs. The college will be in session from 8 A.M. until 10 P.M.

The site of the college is a sloping, lightly wooded 20-acre area. Temperatures range from 60 to 85°—seldom very hot or very cold—rainfall is almost negligible.

Section I


FUTURE ACADEMIC COLLEGE
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FACULTY
LIBRARY
AUDITORIUM
COMMUNICATIONS
GYMNASIUM
STUDEN
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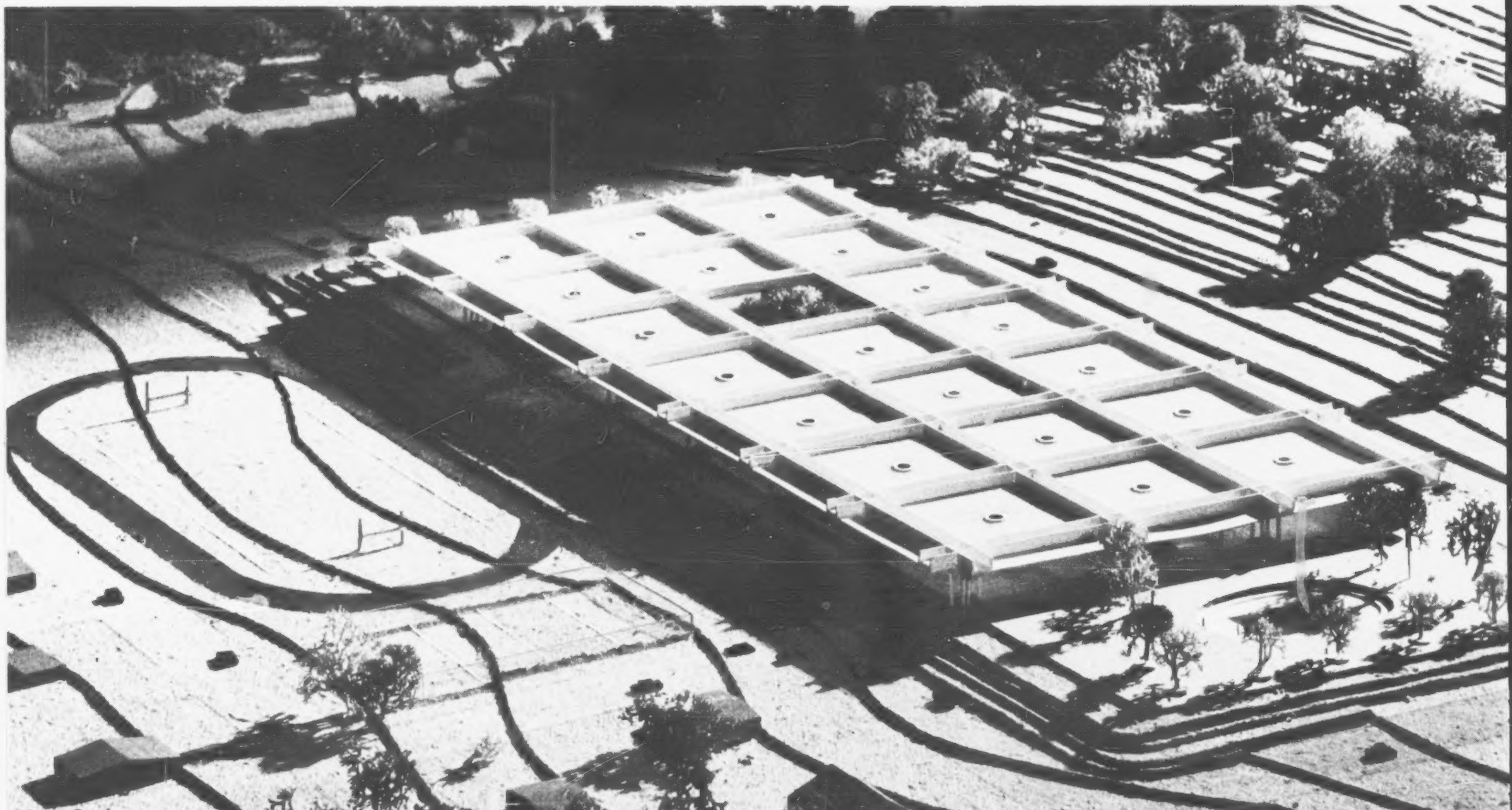
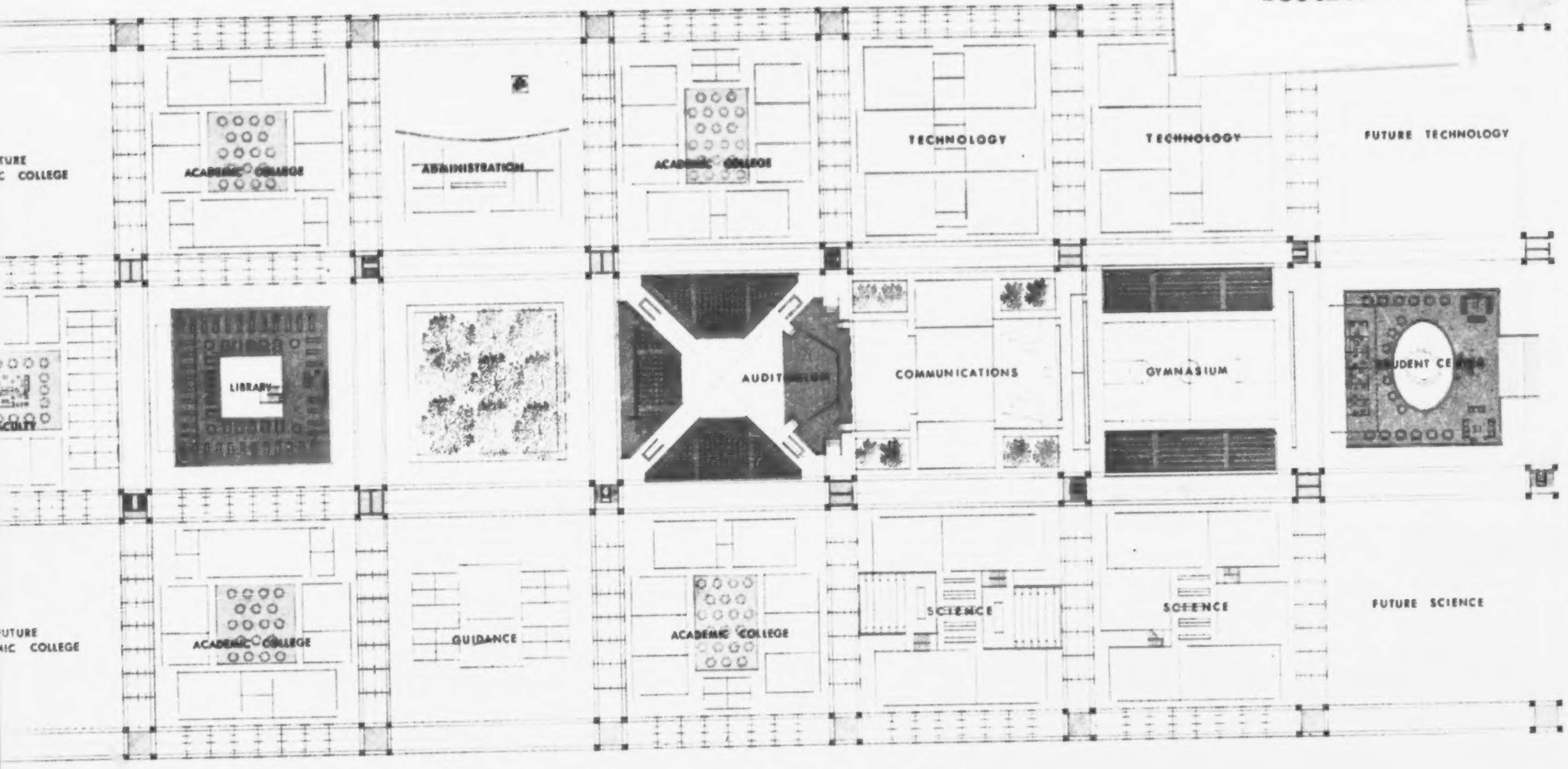
GUIDANCE
ACADEMIC COLLEGE
SCIENCE
SCIENCE
FUTURE

Main Floor Plan — Platform

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GYMNASIUM
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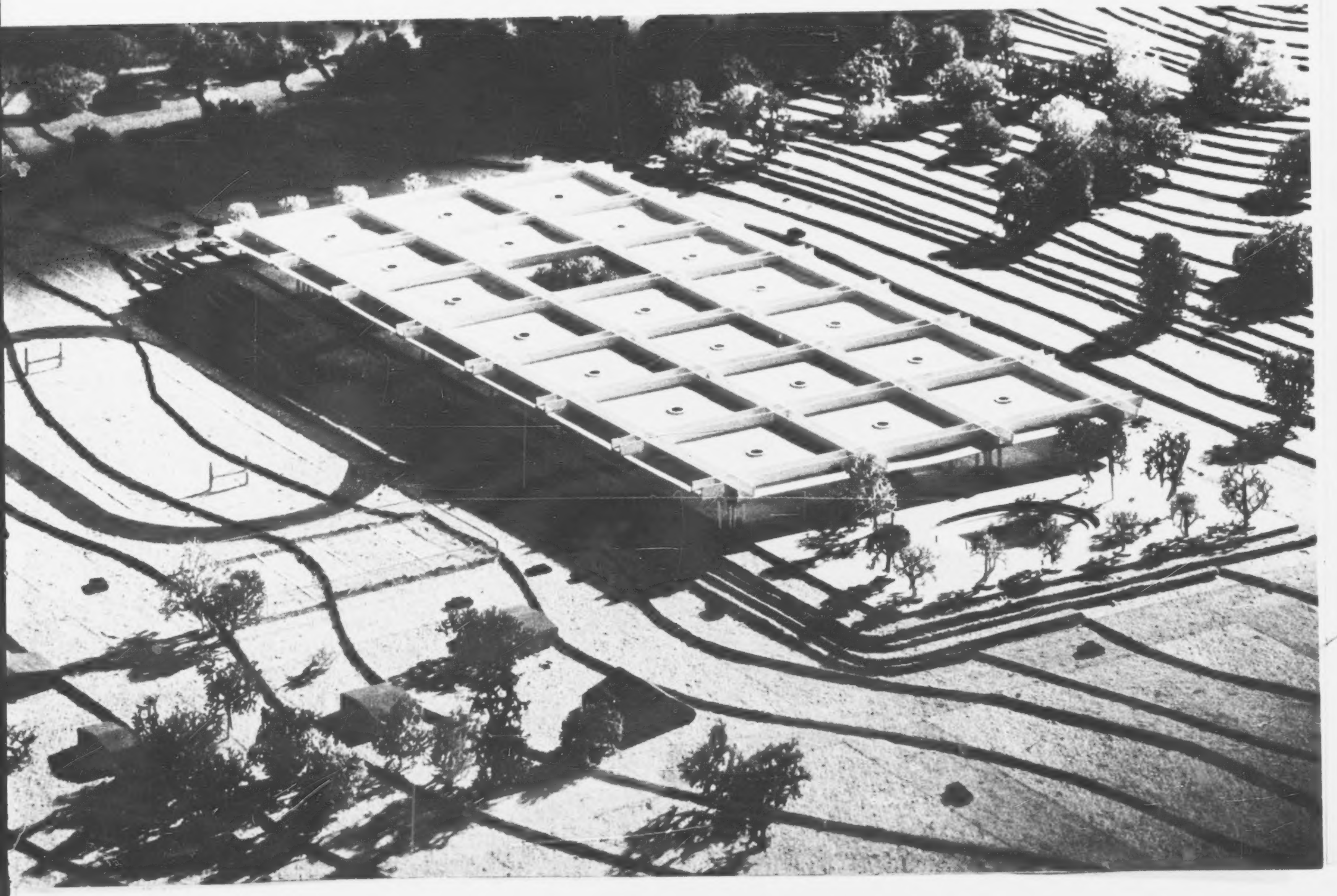
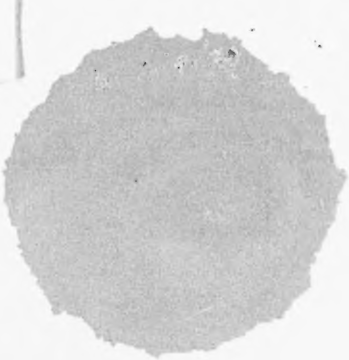
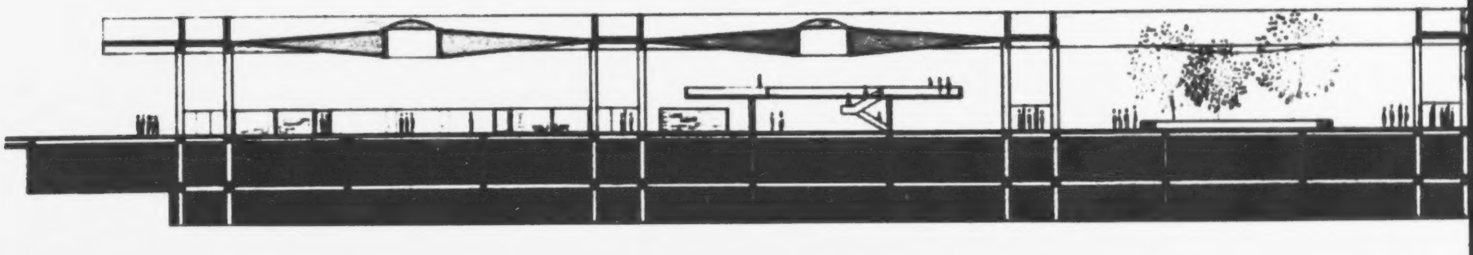
GUIDANCE
ACADEMIC COLLEGE
SCIENCE
SCIENCE
FUTURE SCIENCE

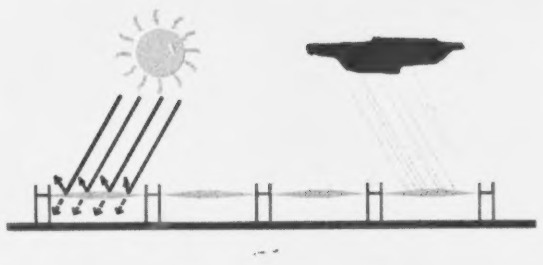
Main Floor Plan—Platform



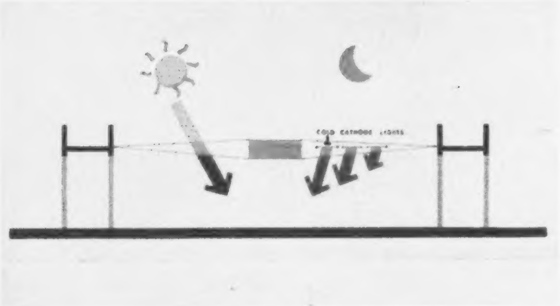
Section I



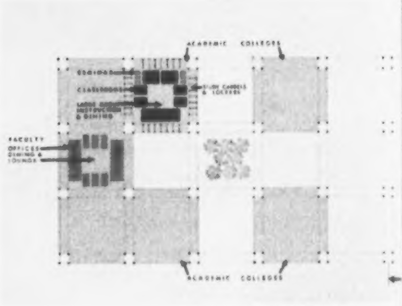




Section — roof shelter



Section — lighting



Plan — educational use

SOLUTION

The challenge was to create a stimulating environment for learning and teaching in a community college with an ideal climate. Because of this ideal climate, the basic concept was to "condition the site" for education, rather than to condition the spaces within the shelter. The students go to college under a shelter, not within a shelter. In a romantic sense, *the architect created a giant tree under which the students will go to classes.*

The basic building is a 400 by 880 foot platform divided by a structural gridwork of 120-foot spans. To meet the need of a dynamic, changing educational program, the architect provided 8½ acres of sheltered area on the platform, of which approximately six acres is almost column-free space. Beneath the platform, on the sloping site, excavation has made room for a great two-level parking garage for 2000 cars.

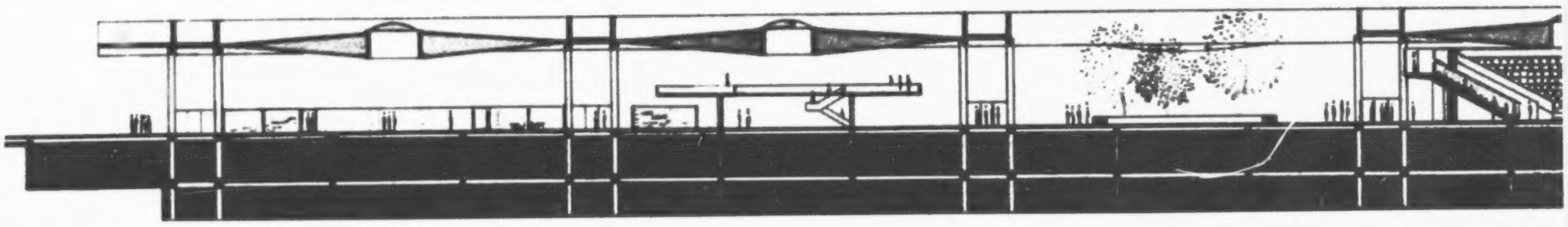
Each student belongs to one of four academic colleges. These colleges within the college are small enough, approximately 600 to 700 students, for each student to feel a part of his unit. He dines in an area with 150 fellow students and studies in classes varying from five to five hundred.

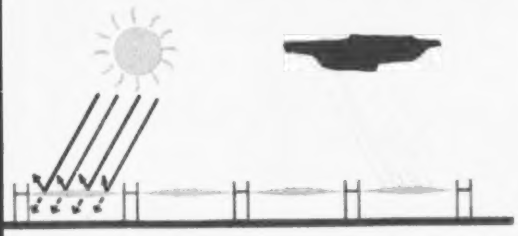
Initially the platform has space for four academic colleges, and the pl
grow outward to add space fo
academic colleges, one at ea
additional bay could be adde
future growth instead of th
swimming pool.

The auditorium near the cente
form can be divided into three
halls, each with a sloping floor
audience vision of the platfor
auditorium seats 550 for a no
function or for an arena-type th
round.

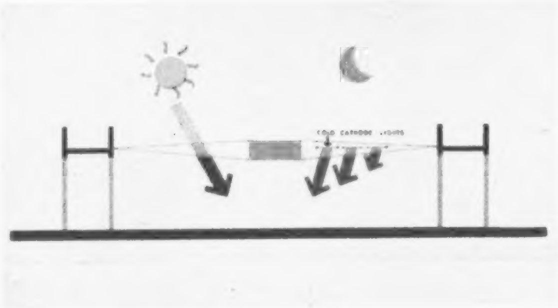
Within the academic colleges
semi-private offices for the day

Section 2

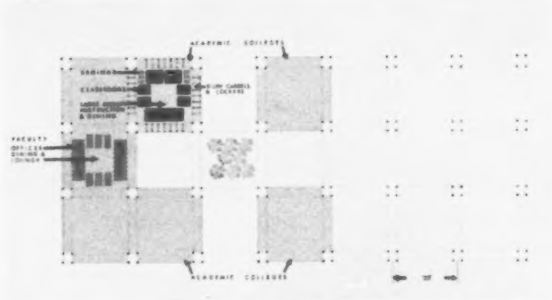




Section — roof shelter



Section — lighting



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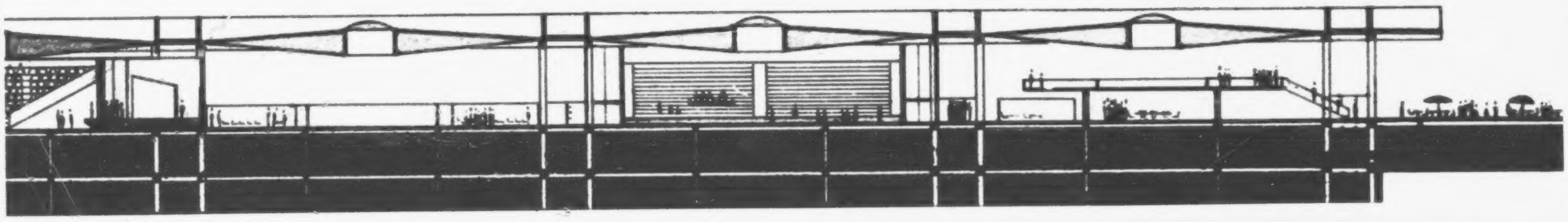
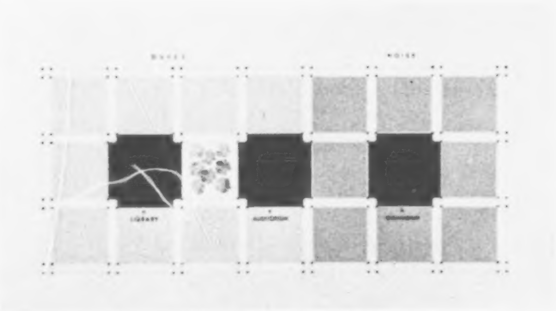
Initially the platform has space for four academic colleges, and the platform may grow outward to add space for two more academic colleges, one at each end. An additional bay could be added for more future growth instead of the proposed swimming pool.

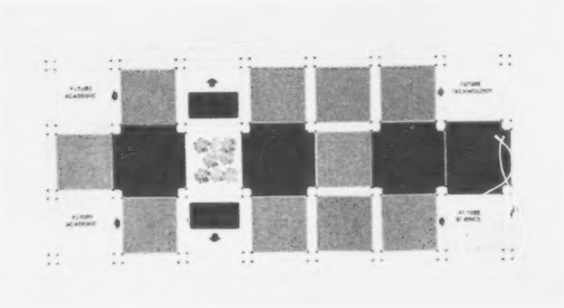
The auditorium near the center of the platform can be divided into three large lecture halls, each with a sloping floor for excellent audience vision of the platform area. The auditorium seats 550 for a normal theater function or for an arena-type theater-in-the-round.

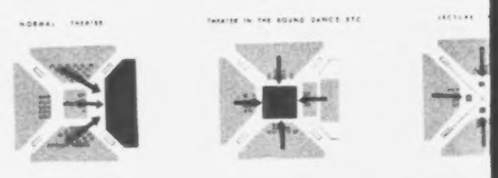
Within the academic colleges is space for semi-private offices for the day time faculty

Section I




Plan — activity zoning


Plan — expansion


Schematic — auditorium combinations

members. The faculty for the evening classes will have private desks in offices of ten members each. The faculty has its own private dining room and lounge area.

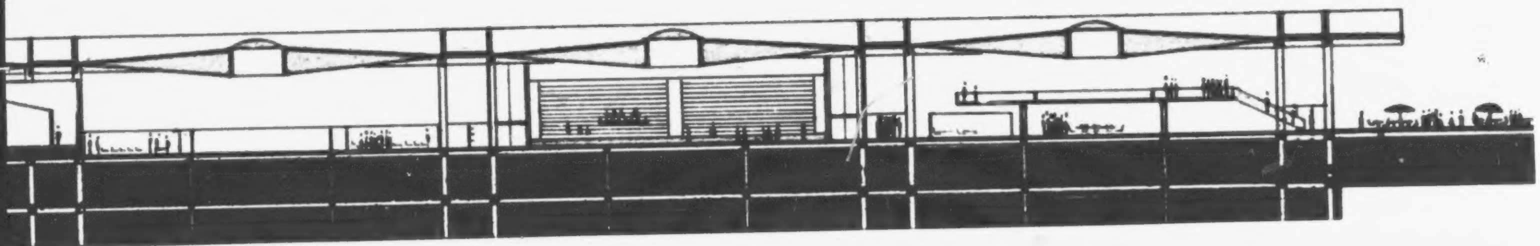
A study carrel and locker unit is provided for each student where each may store his belongings and study alone.

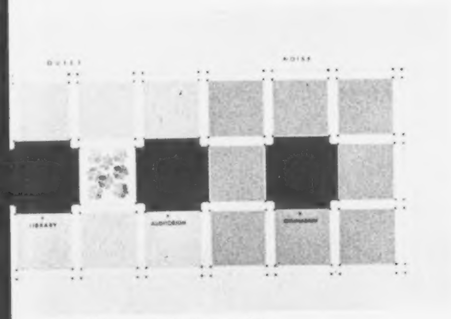
The quiet area for study uses one half of the platform, and the noisy study activities, the other–the latter includes shops with machines, music rooms and other classes of high sound levels. Varsity and gym lockers, kitchens and classes requiring suppliable services are at the parking garage level.

A structural bay of 120 sq. ft. was developed to allow as much column-free space as possible. The structure calls for four columns, 16 feet apart, at each bay intersection, rather than one column. This space at the interstices is used for all services including stairways, elevators, janitor rooms, and storage closets.

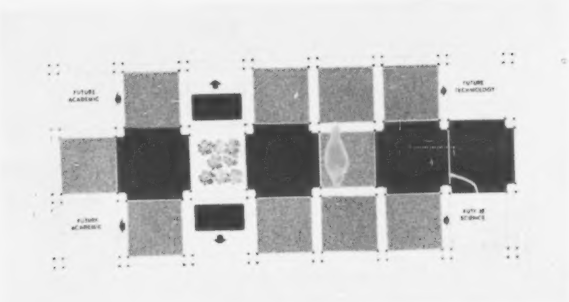
The space is further subdivided into a four foot grid by electrical raceways to allow installation of moveable, exchangeable wall panels, four feet wide and seven feet high anywhere on the four foot pattern. Five basic panels are utilized (see sketches). They may be used in any number and attached on the grid to create the spaces needed as dictated by teaching need new situations.

An unusual roof design protects th dents and classrooms from rain and th sun. Spanning each 120 foot squar cable tension ring system covered by a lucent, vinylized fabric roof. Artificial ing between the fabric layers of the structure augments the natural lightin comes through. The artificial light completely hidden, yet provides the overall illumination that occurs durin ural daylight. Under this big roof, th lege can flexibly do what is necessary changing educational needs.

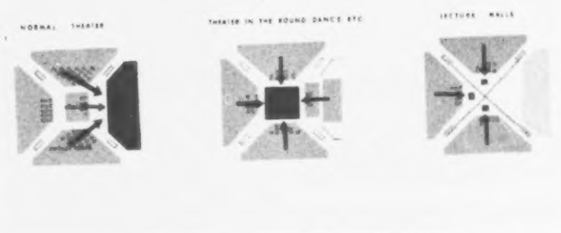




Plan — activity zoning



Plan — expansion



Schematic — auditorium combinations

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An unusual roof design protects the students and classrooms from rain and the hot sun. Spanning each 120 foot square is a cable tension ring system covered by a translucent, vinylized fabric roof. Artificial lighting between the fabric layers of the roof structure augments the natural lighting that comes through. The artificial lighting is completely hidden, yet provides the same overall illumination that occurs during natural daylight. Under this big roof, the college can flexibly do what is necessary for its changing educational needs.

The roof is 24 feet above the platform. Since the wall panels are seven feet high, this keeps open a space 17 feet high, through which the mild air ventilates the classrooms and laboratories. This furthers the concept of conditioning the site rather than the rooms. It also aids in dissipating the sounds from noisy rooms. For security, two watchmen patrol the building at night—considerably more economical than ceilings on the rooms and air conditioning.

In order to produce as economical a solution as possible, certain cost-saving ideas were advanced. The dirt excavated for the parking garage is used as fill on the site. The classroom partitions are mass produced in a factory and delivered to the site complete. The majority of the spaces have no ceilings, and no mechanical ventilation, except in the administration, auditorium, gymnasium and parking garage. The structural system is modular and repetitive and comparatively simple. All units requiring services, such as shops and science laboratories, have exposed piping in the auto garage ceiling which may stub up anywhere in the academic area.

These cost reducing items, in the opinion of the architect, reduce the total cost considerably lower than conventional school cost. His estimate for equivalent square foot unit cost is approximately $8.00.

In this solution are successful responses to the region, the commuting student, the flexibility and versatility which mark a dynamic educational system and the economic factors of building such a community college.

FRANKLIN D. LAWYER

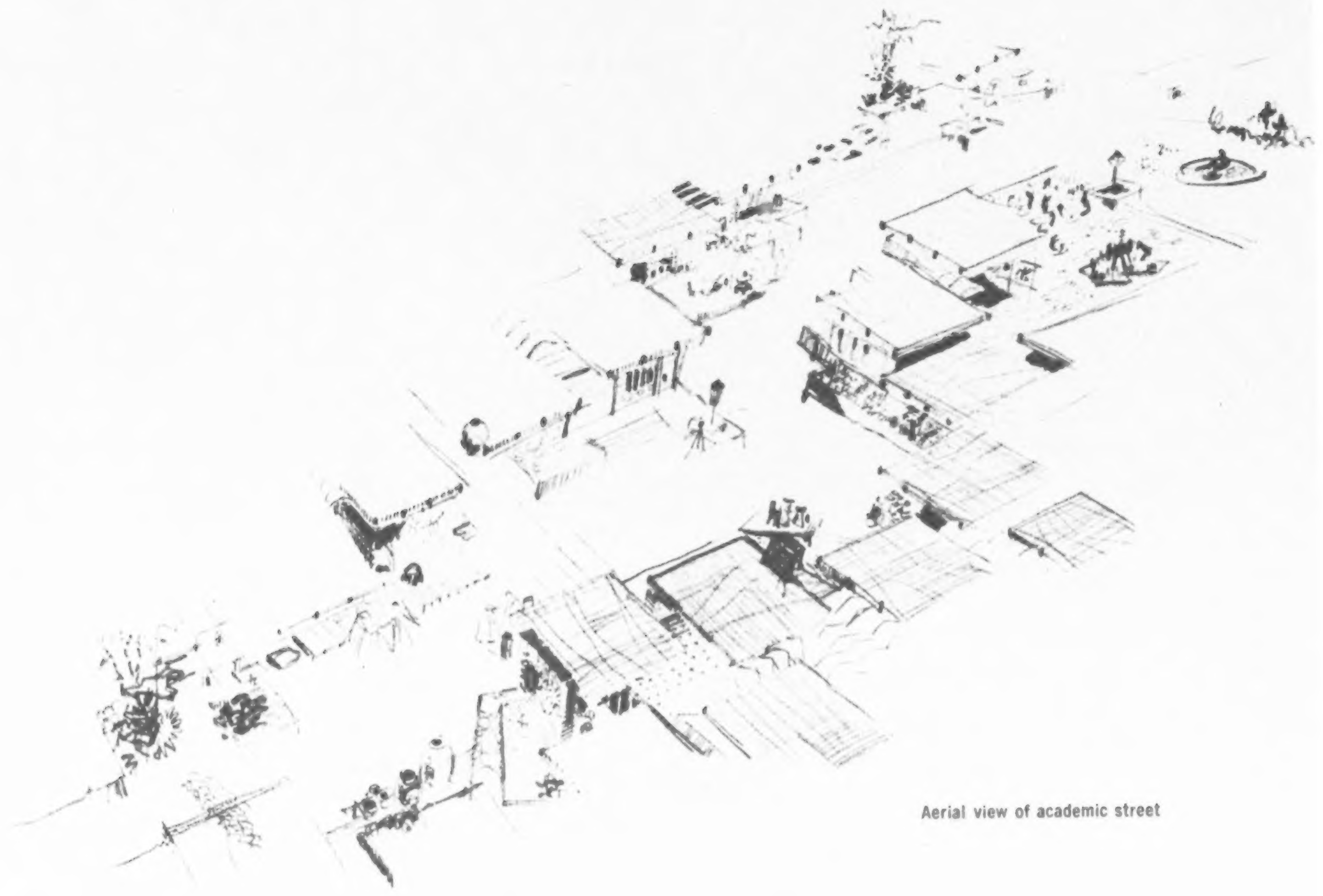
Frank Lawyer, an associate of Caudill, Rowlett and Scott, Houston, Texas, was an old hand at a design technique in which architectural design is executed during a brief period of highly concentrated effort in the midst of consultants and clients. He incorporated the advice from the climatologist and the structural consultants to produce a school which utilized new educational concepts and the latest materials. He was a real inspiration for his student team. Mr. Lawyer has been the chief designer for CRS on their award-winning schools for the past ten years. He is a graduate of Oklahoma State University and Cranbrook Academy of Art and has taught at Texas A&M College.

Lawyer, Vopat, Beynon

GROW IT YOURSELF COLLEGE

When architects decide that the focus of their efforts should be not the building but the experiences people derive from it, when we involve ourselves with mental processes as well as with physical accommodations, we deal directly with the elements that will operate during the life of our structures. While we have been aware that our spaces, our surfaces, our materials, and our forms inevitably evoke responses from people, our primary objective has remained the development of a beautiful object. What this solution suggests is that we deal instead with a mental landscape — the minds of those who will use or pass by and through our building.

As a result we have taken as our major concern certain aspects of the problem which are implicit but unstated in the program. The empirical aspects, the number of students, the site, the sample curriculum, are treated here as important but not fundamental. The real problem we have attacked is suggested by questions: How does learning take place? What does the individual seek from education? What does the community want? What barriers are created by existing educational programs and practices? Where are these practices getting in people's way? What can architecture best do with an educational opportunity?



Aerial view of academic street

We assume, as a point of departure, that buildings can do a great deal more in education than merely house students, teachers and "facilities." We assume that architecture can teach, directly: 1) by a basic modesty of concept, enriched by diversity of materials and structure; 2) by respectful use of elements human in scale and dimension; 3) by bringing people together in face-to-face relationships; 4) by surrounding people with form, colors, textures, and proportions that are as beautiful as we can make them; 5) by reminding people of past human accomplishments and emphasizing continuing values in human experience; 6) by employing the gifts of nature; and 7) by involving people and exposing them to interests and ideas not their own.

Our proposal begins with a road or street. We have come to think of roads as separating parts of a site from one another, or as mere access ways to buildings. Instead, this road or street is as central to the college plant as blood marrow is to bone, muscle, and flesh.

The street, one of the oldest human principles of organization, is, and has always been, the lifeline of human intercourse, a medium of social exchange and of circulation, echoing the passages contrived by nature, from rivers and streams to the human circulatory system. From the Roman road

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to the modern arterial highway, from the crabbed lanes of tenth century Paris to the Bantu pathways through the jungle, the street occurs again and again as a principle through which man attempts to bring order to his existence, to make a chaotic and often hostile world habitable and intelligible. It is only recently that the street, in providing efficiency and speed for the automobile, has become too dangerous to perform its original function.

The street we show is the main hall of the college, not a corridor. Its limits are imperceptible and extend ultimately to include all of the functions of the college except those specially adapted to certain disciplines. Varying from cobblestone to brick, the street expands to include terraces stepped down and up, balustraded and open, shaded and unshaded. These alternately encroach upon the street and withdraw behind enclosures against the weather where tables and chairs sprout and wait for people to sit and talk, to eat, to study and to rest. Vases, pottery and small fountains, street lamps and sculpture mix casually with stone and textures, with the warp and woof of brick, with the wandering grain of wood panels; and mosaics tangle with mobiles—aspiring to become what Malraux called "a Museum without walls," where Renaissance paintings vie with Phoenician sculpture and 20th century action paintings rest alongside a Romanesque crucifix. African fetishes, Egyptian prayer stools, a Franklin stove, and Greek and Roman fragments make these spaces in one way like a pawnshop window and in another like the back lot at a movie studio where the debris from "Napoleon's Retreat from Moscow" nudges models of gantry cranes used in filming the launching of the latest satellite. Among these we propose a kind of educational bazaar, a place where every kind of knowledge is presented to every kind of learner without isolating a given specialty from the total sum of human knowledge.

Snack bars and soda fountains replace the central, concentrated student union with the aid of the mobility of the concessionaire — these become small, intimately scaled, eating clubs where learning proceeds as easily as in the classroom. Toilets and student lounges fall into place easily and no Easter egg hunt is necessary to find them. Dime lockers punctuate the area as in railroad stations, but here they are grouped into low banks the size of furniture. Sometimes a search for a locker uncovers for the seeker an entirely new discipline to explore. Meeting halls become the hinges on which the spaces turn, and grouped with them are the staff lounges and the control stations for the libraries. Below these public areas a basement level tunnels the street to supply each side from stack rooms and preparation rooms, from storerooms and file rooms. Lifts carry demonstrations previously prepared to the platforms of the meeting halls or to library display cases above. The line of libraries and meeting halls ends the previous pattern and begins the specialized spaces with specialized equipment for concentration in a given field. We are calling these workshops, and workshops are precisely what we intend. Unwilling to plan for what we feel is merely the current form of the educational process, having seen these forms come and go, we propose spaces and equipment for the learning act itself. These workshops are "tool spaces" that can function in the basic disciplines of the learning process.

We believe that in these spaces the designer's aims should give way to the specialists' knowledge and the technician's know-how. Hence we suggest they take the form best suited to the technical processes they house and submit to the guidance of informed teachers and technicians under no compunction to follow an architectural concept. The resulting, possibly conflicting and heterogeneous, architecture will add that vigor and individuality that permeates towns where people, not architects, have answered their own needs.

We suggest as a logical development that community interests and industries can here enter the college framework, leasing ground and building their own workshops, possibly even staffing them as well. Disregarding the practical gains, this incorporation of the vital community's own life-giving forces into the college opens vistas of an integration that promises much. The college workshop becomes merely the extension of the home workshop, a better equipped kitchen, back porch, or garage that invites ready use. No real workshop can function without a yard and a backyard is even better. So our site beyond the workshops becomes a series of these, overlapping and meshing, moving where they will. Tree-planting screens the perimeter, and the street organization does not reflect their existence; like huge closets, they are a needed escape for clutter, for unused tools, for storage, and architectural mayhem.

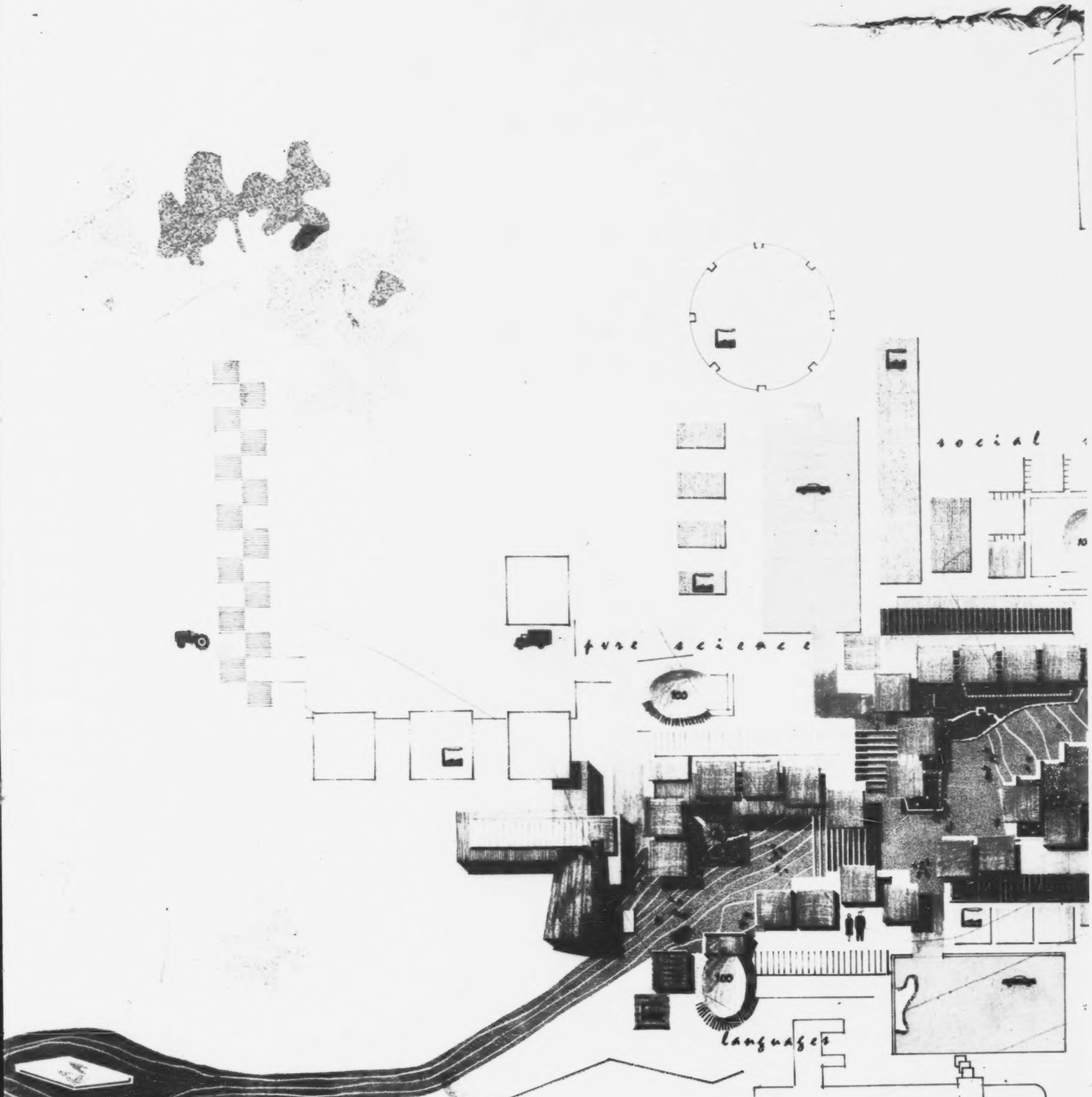
Making human response to architecture the principal guiding factor in design opens tremendous and profound opportunities to architects and is fraught with equally tremendous responsibilities. Because human response is inevitable and because people determine decisions in large part from their perceptions, the obligations of the designer of the environment can hardly be avoided. Under this concept, buildings and spaces mean little in themselves — they merely function as tools in a complicated process whose end result is reflected in the attitudes and action of people. No more important, more interesting, more mysterious, or more rewarding opportunity was given to any art.

Architecture in this light is no mere static force, but occupies a dynamic place in human existence, touches a person's thinking, inspires emotions, and helps move him to action, influencing his day to day activities with subtle direction.

Architecture with a capital "A" might describe one approach—here the building is the thing, and the architect is the artist, the building his work. These structures can be quite arresting and can produce great admiration and awe in the beholder. There have been some quite wonderful examples of such structures—we are certainly the richer because of them, and throughout history we have honored them and their makers as well. However the question arises: is admiration and awe the proper and appropriate emotion we want to evoke in experiencing all buildings? How frequently must people push such monuments aside in order to proceed with their own lives? Does the opportunity to build rank over the obligation to people?

Little "a" architecture might be said to place the obligation "to people" ahead of the opportunity "to build." It exchanges the designer's lonely luxury of self-expression for the richer one of permitting whole groups of people to express themselves, and instead of a single significant statement made once, it gives rise to a series of actions over a period of years. It seeks to get architecture out of people's way, but at the same time accepts the obligation of exerting a force, essentially a moral force, in a dynamic way on human existence. We are beginning to delve deeper into the educational problem and to realize and to shape the system to fundamental human needs without regard to the damage wrought to patterns fitted like an iron mask over all and sundry. We have had many demonstrations that people learn only when personally motivated, and that substitute motivations like grades or course credits produce only temporary learning, easily discarded.

"Courses" may be the delight of the administrator or suit the methodology of the savant learned in a given area, but they rarely suit the individual motivations compounded in a group of people. A community college deals with adults, and the application of a fixed framework is open to question. We, therefore, look forward to the time when education offers few complete packages and students find their own paths led by their own motivations among those basic disciplines that have developed through innate logic over the years. These disciplines underlie all the fields of learning and form the basis of all the technologies; they pair and overlap, work backward and forward, and rarely fall into segregated compartments with a straightjacketed sequence. Forcing a rigid sequence of dismembered parts on a beginning motivation can kill with tedium in short order.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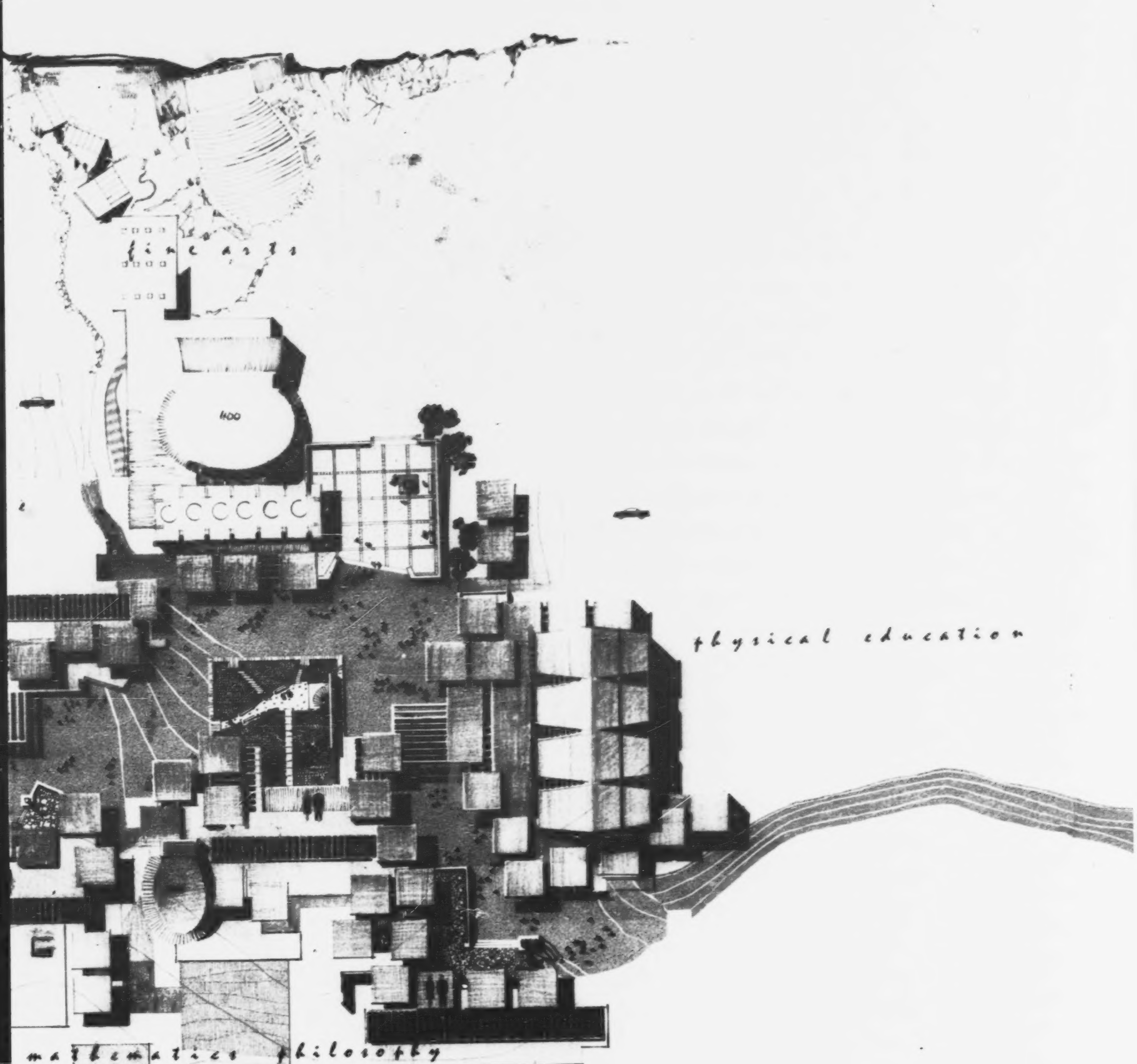
fine arts
400
physical education
mathematics philosophy

Now for some of the routine problems — parking for example. The permanent allocation of land — two-thirds of our site would have been preempted — or the permanent allocation of funds as the answer to the automobile seems, at best, very rickety logic. We can be reminded that the automobile is basically a personal possession, like a man's dog, boat, or wife. We see no particular reason why the educational plant should be burdened with warehousing the private possessions of the student. Parking a few automobiles on a campus is no problem — our proposal included a few areas for staff and other personnel, for visitors, and even the random student — but multiply the number two and three thousand times and parking on campus becomes a travesty on reason. Nature knows when to stop — as a man does in growing — and man could similarly modify his arithmetic. Furthermore, in the way history reckons time, the automobile is a temporary problem, and we suggest, instead, as a temporary solution to a temporary problem, that the college give to a concessionaire the right to operate a shuttle service making pickups at designated existing parking lots in the communities served. Concerning the student who drives his car to the college, hunts for a place to park until the time for his class has passed, and finally goes home thoroughly annoyed — we would expect to see him the following night arrive on the shuttle.

To those that view with alarm the prospect of our narrow street being clogged with shuttles when 4000 students become involved, and to those with whom we would agree that 100 shuttles present a horrible picture, we suggest that the shuttle system is, nevertheless, a significant improvement over the even more horrible picture of 4000 personal automobiles converging on the campus from various directions. Administrators may balk at the suggestion, but the staggering of classes will divide this problem by two, four or six; non-scheduled systems solve it entirely.

Apparently growth has become a great problem in architectural design; it has developed into a separate and distinct aspect for which a solution must be found. We have avoided a solution organized around a central point that inevitably breeds more and more remote perimeters; this is why we have no central axis. Man's answer to this problem — the storied building — multiplies rather than solves the difficulties. We have never noted more than one bluebonnet on a single stem, and again watching nature, we see that living animals grow by cellular division; living matter grows continually occupying more and more space along some essential bloodstream. We have taken our cue from the vine, spreading as it finds support, and our plant grows along the street and into its backyards, as towns do. The layers on each side simply extend and are serviced with additional

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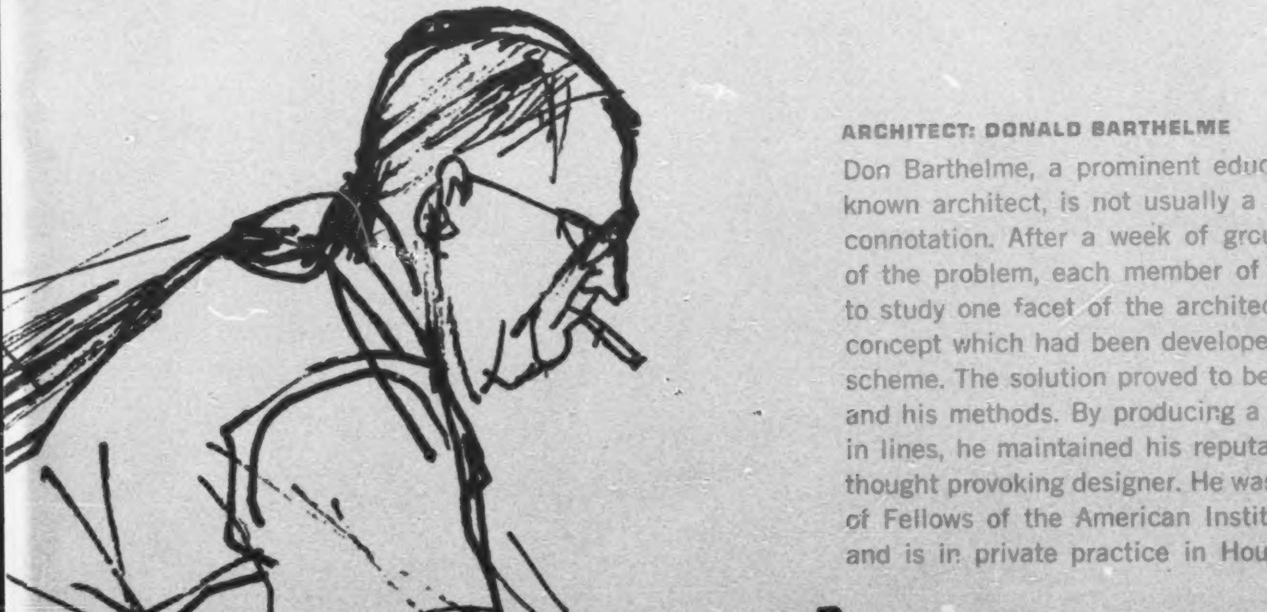
snack bars, additional lounges, libraries and meeting places. Development in depth and facilities for the disciplines proceed into the yards, and areas are exchanged or merged as the case may require. Looped lines extend also, and equipment is "plugged in" as new needs require. The scheme remains unchanged, and site limits set a healthy bar against unchecked multiplication by linear formular. If this answer should fail to satisfy with the nicety of the solutions upon phase one, phase two, phase three, etc., it is possible to observe that nature has worked at this problem longer than we and, as yet, has produced no visible master plans.

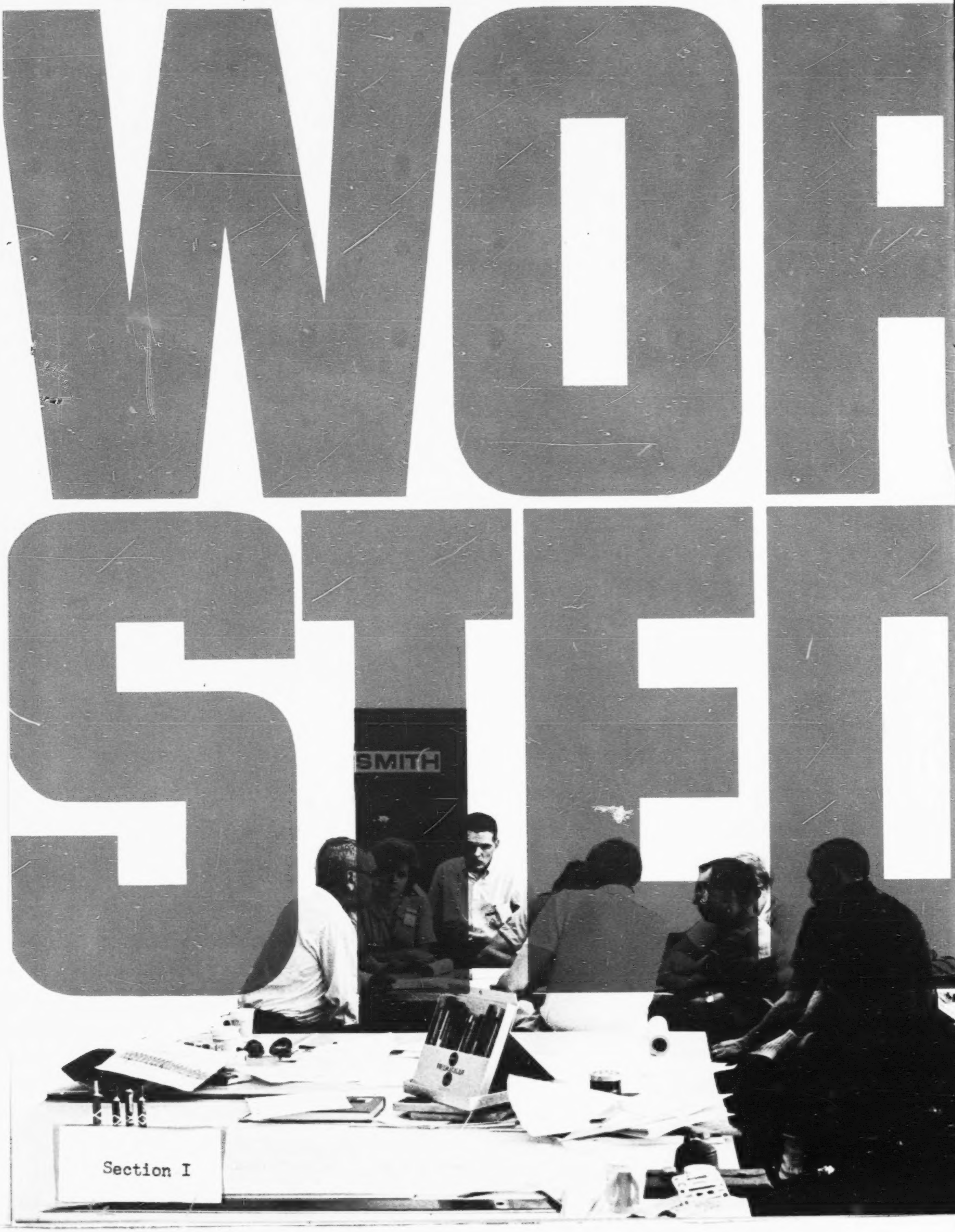
Money — or the lack of it — controls design too. We tried to substitute significance for monuments and simple materials and structure for more complicated architectural concepts. We propose more use of concessionaires for more elements of service — and we propose local industry as co-partner in plant and personnel. We propose instruction more closely integrated with the college plant — 73 of 78 courses listed had their counterpart in one or more plant services. We propose recognizing, not ignoring or evading, the problem of restricted funds that present tax structures will set.

Finally, we suggest that with imagination and clear thinking in basic aims, no problem need merely be "solved" — each problem is a new starting point for educational experiment and learning emphasis. Architecture is more than packaging alone — and should be.



ARCHITECT: DONALD BARTHELME

Don Barthelme, a prominent educator and an internationally known architect, is not usually a "team man" in the strict connotation. After a week of group analysis and discussion of the problem, each member of his team was given freedom to study one facet of the architectural and educational concept which had been developed while he prepared the overall scheme. The solution proved to be as controversial as the man and his methods. By producing a design, more in words than in lines, he maintained his reputation as a highly talented and thought provoking designer. He was elected to the College of Fellows of the American Institute of Architects in 1955 and is in private practice in Houston, Texas.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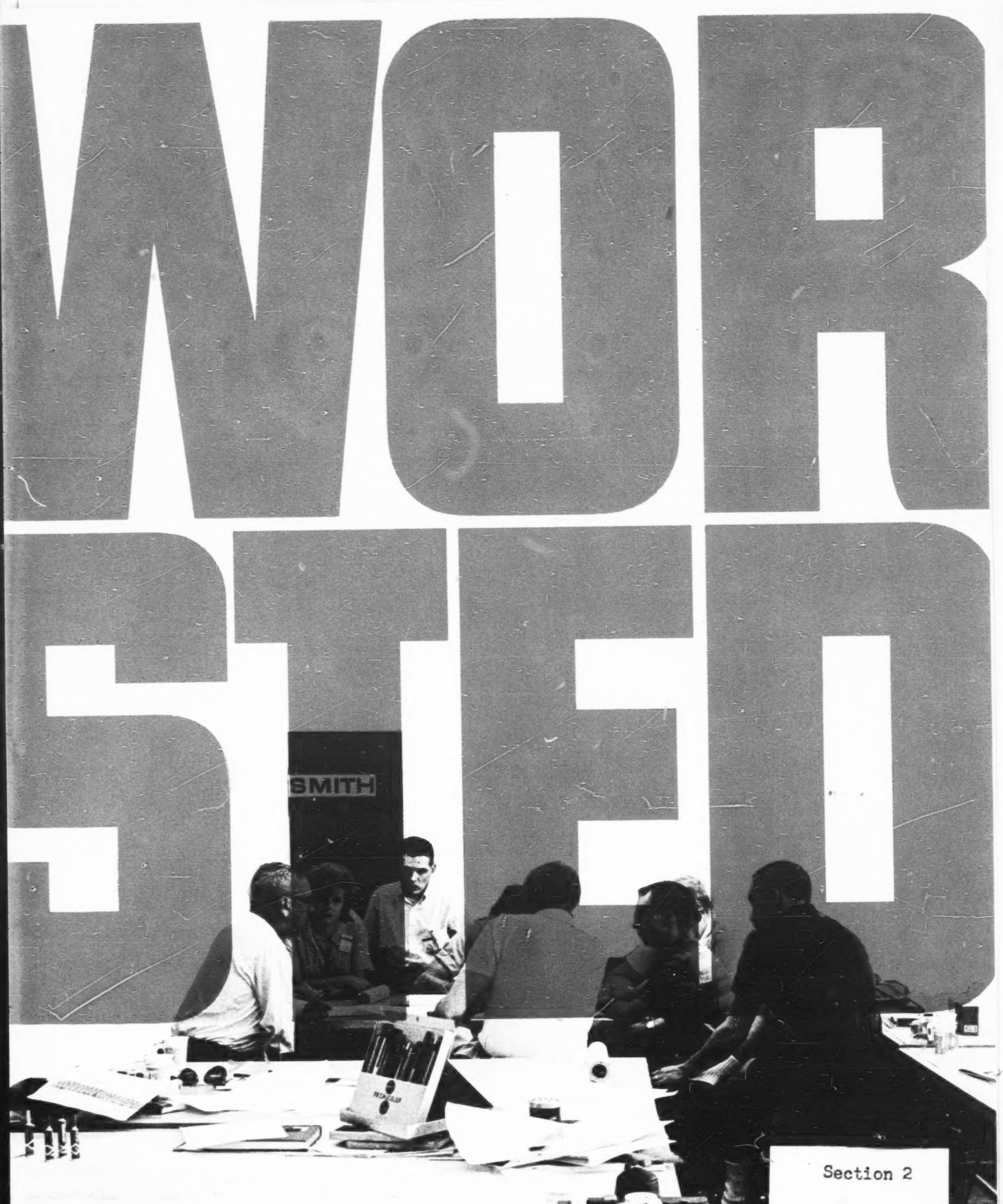
Section I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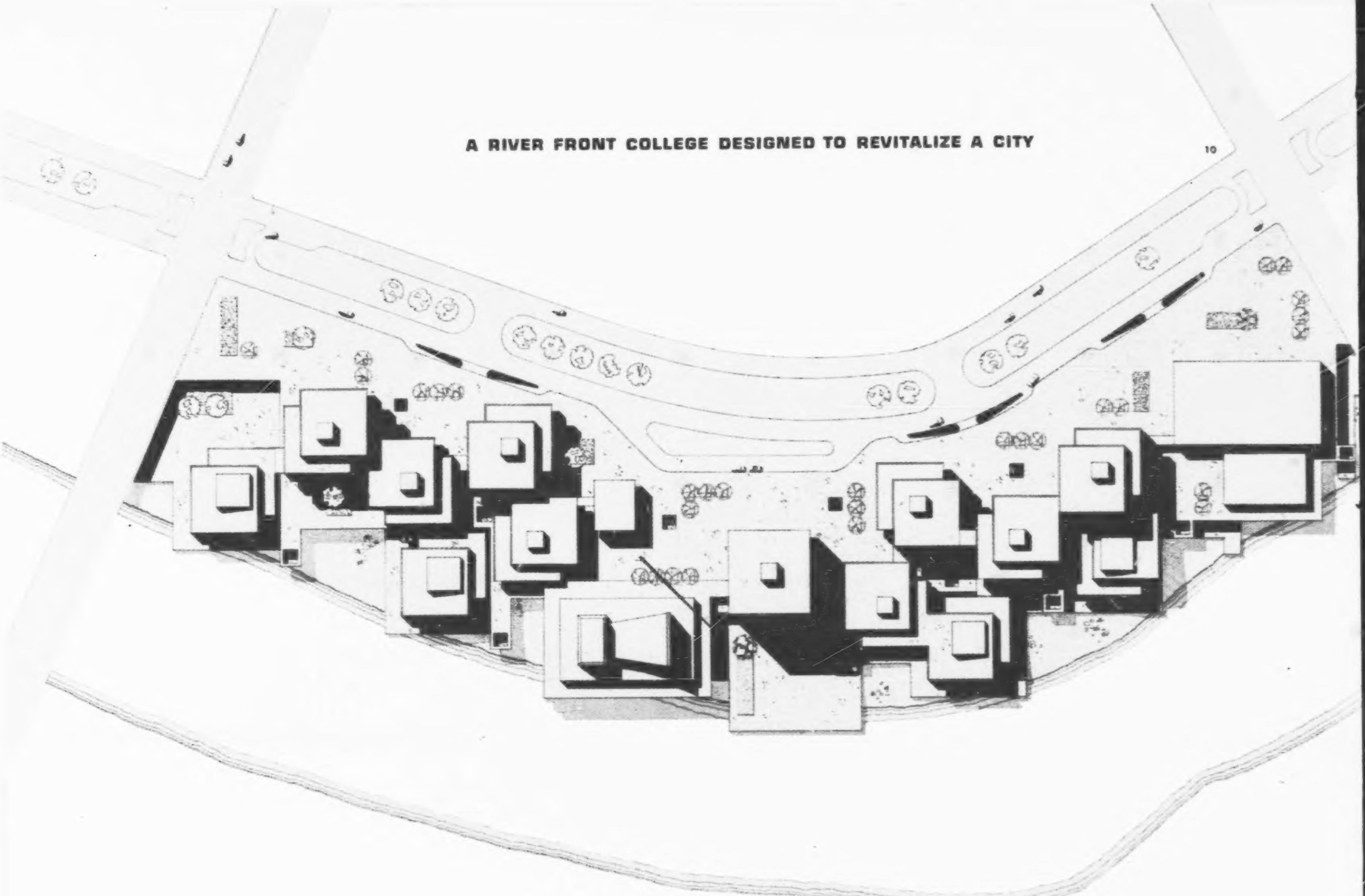
Section 2

A RIVER FRONT COLLEGE DESIGNED TO REVITALIZE A CITY



Worsted is a suburban New England city of 45,000. Heavy industry, particularly textiles, has declined during the past decade, but many research and development firms have settled in and around this metropolitan area. With this new industry moving in, the population has begun to increase slowly.

Now that the citizens of Worsted have realized the need for a community educational program, they have allocated a nine-acre site for a community college. This college will probably serve an area of less than a 20-mile radius. Initially, half the students will come from within a five-mile radius. Public transportation is very poor, but new highways will make the college more accessible for commuters of the community.

About one third of the students will be in transfer programs; another third will be enrolled in business administration and secretarial curricula. Within four years the day enrollment will exceed 1300 students; the faculty will grow from 18 to nearly 60. It is unlikely that the college will embark on an evening adult education program within the first three or four years.

COMMUNITY COLLEGE

Section I

A RIVER FRONT COLLEGE DESIGNED TO REVITALIZE A CITY

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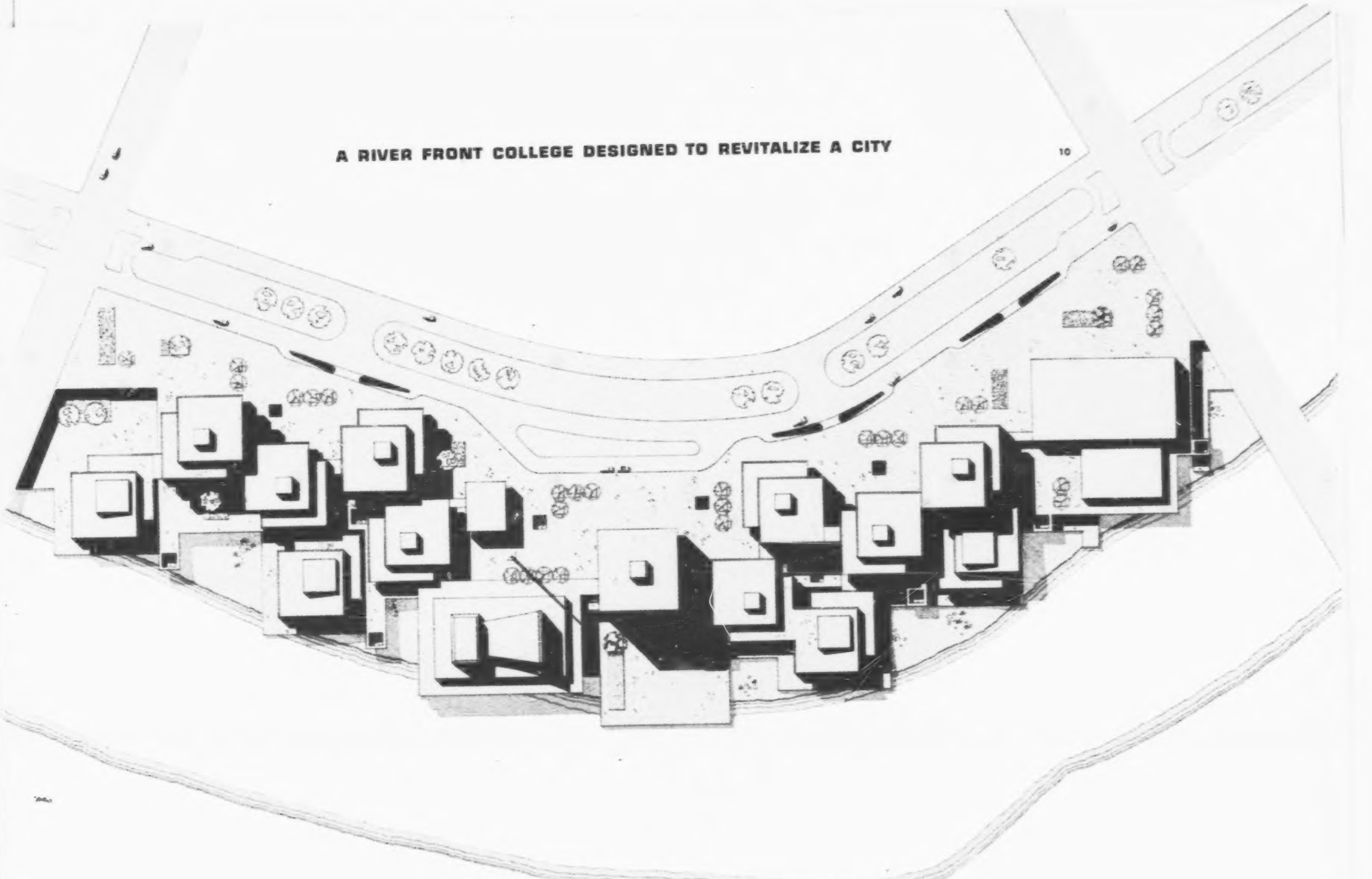

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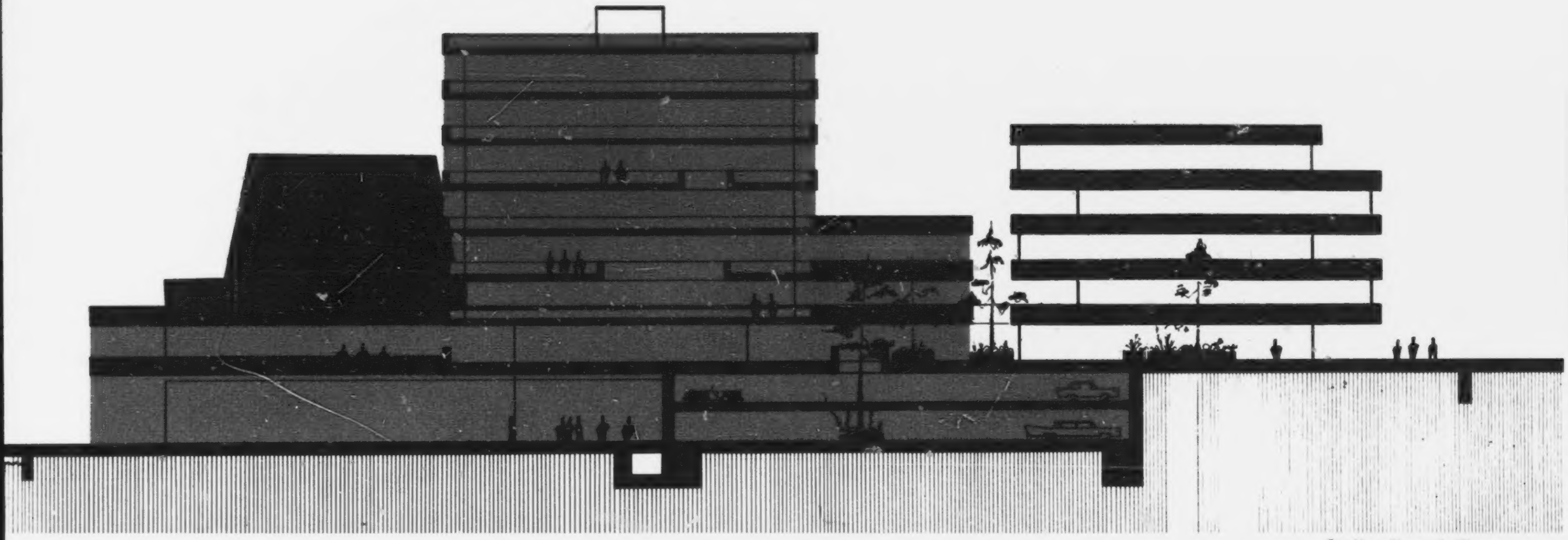
Y COLLEGE

Section 2



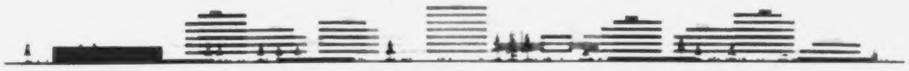
Section through library

The Worsted Community College has a distinct philosophy and architecture that makes it an integral part of the community — a physical plant which attracts people and is attractive — which unifies the community by utilizing all the community's resources, and raises hopes for the economic advancement of the entire area.

Worsted citizens established the college to accomplish five goals:

1. To provide a liberal arts and sciences program for those of its young people who wish to begin college while living at home.
2. To provide a two-year terminal-technical program for the young people who wish to train for technology, business, and industry.
3. To provide a non-credit program in general education for its citizens -- young and old — who wish to pursue special interests.
4. To provide an adequate counseling, guidance, and testing program for the community.
5. To provide Worsted with a community cultural center.

The most interesting educational aspect of Worsted Community College is the absence of rows of traditional "egg crate" classrooms.



Elevation from street

Worsted has reorganized the educational process around a new philosophy and new techniques. The three new basic concepts evolved are reflected in the architecture.

First, there should be a re-assessment and re-assignment of space necessary for certain learning activities. Many different activities can take place in one classroom space: reading, writing, listening, discussing, and viewing. These are common to most subject areas and have no bearing on the teacher-student relationship. Some of these can be moved to more appropriate spaces. Our regrouping of activities assigns the teaching and learning processes to areas quite different from the traditional classroom arrangement.

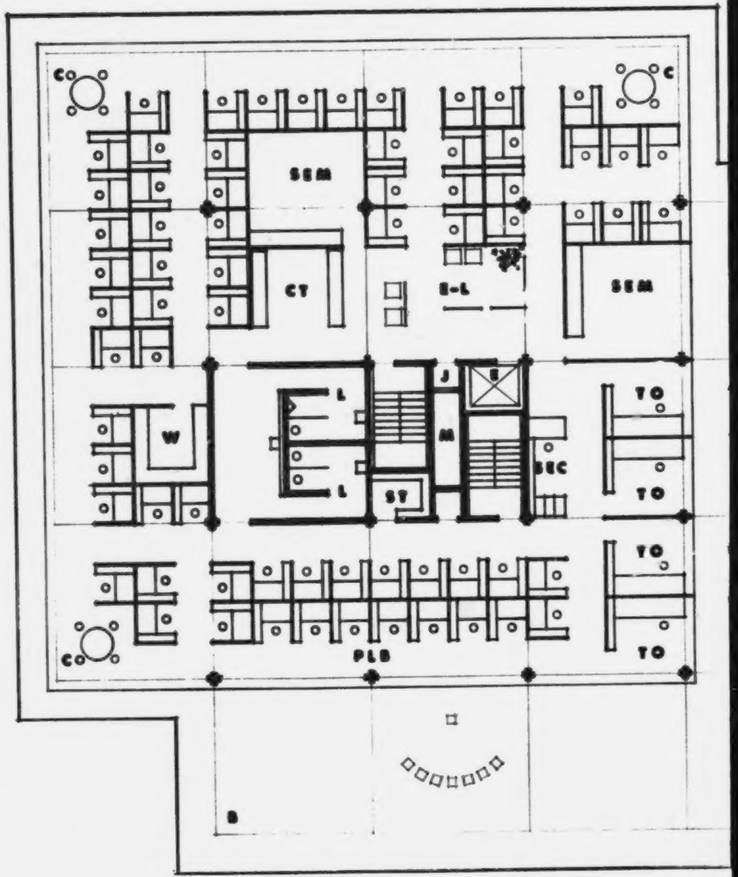
1. Reading, writing, viewing, and listening can be done more effectively in individual spaces.
2. Discussion is more effective in small groups of two to six persons and should take place in appropriate spaces.
3. Teacher-student activities, those concerning only the specifics of subject matter, are most productive in groups of about fifteen.

Thus spaces are needed for individual work, for small conferences and small classes. Other spaces are planned for large groups, presentations, and for project work. The educational spaces are simple, open, flexible floor units which contain individual study spaces – one for every full time student enrolled – conference spaces, seminar rooms, teachers' offices, work spaces, and a small service core.

Each departmental complex has a large group space, administrative space, resource center, and specialized shops. Each takes a somewhat different concept for effective teaching and learning requirements.

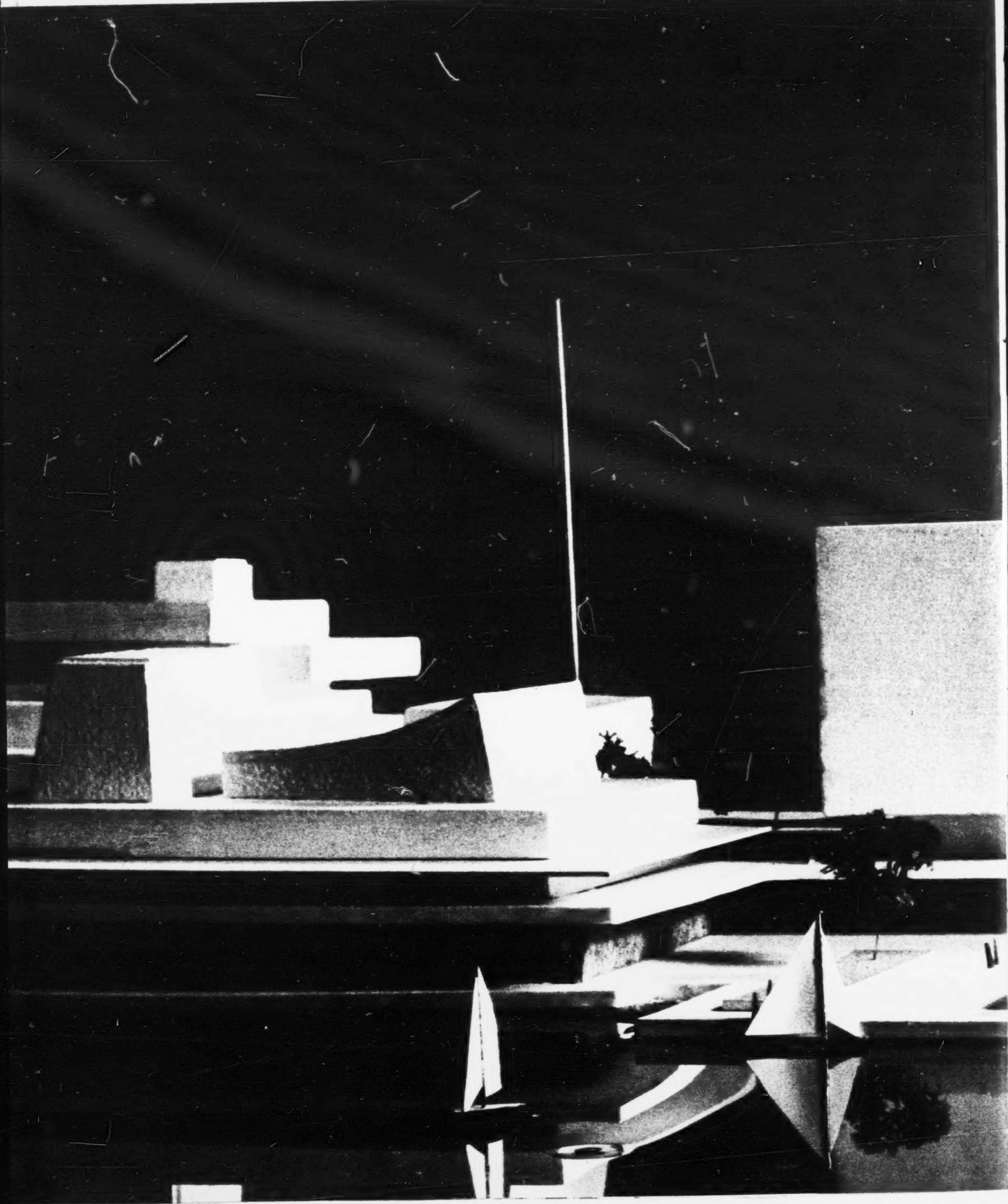
Second, new techniques in education must be considered for the reorganization. Worsted citizens believe that maximum use should be made of new techniques in the process of education, those available today, those of the future. Consequently, provision is made for ultimate individual use of television, programmed learning, teaching machines, communications media, language labs, and methods developed for storage and retrieval of information.

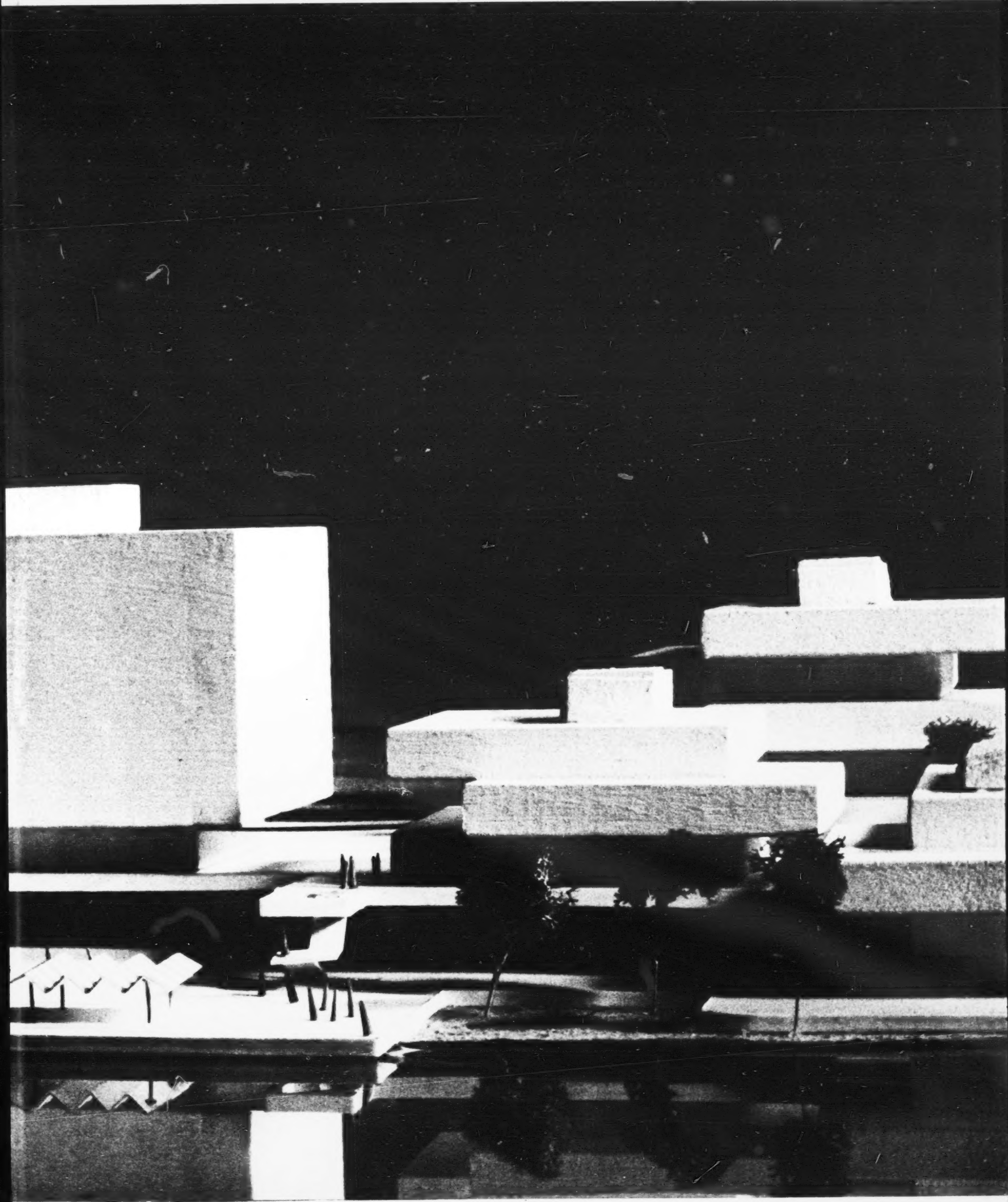
Third, a close unity between the college and the community is desired. As many of the facilities as possible will be utilized by the community, and local industry, government and business will provide the special labs and facilities required for the community college program. This will make available modern, up-to-date equipment and will make the buildings in operation of the college less expensive in exchange for the community's use of the cultural center and library.

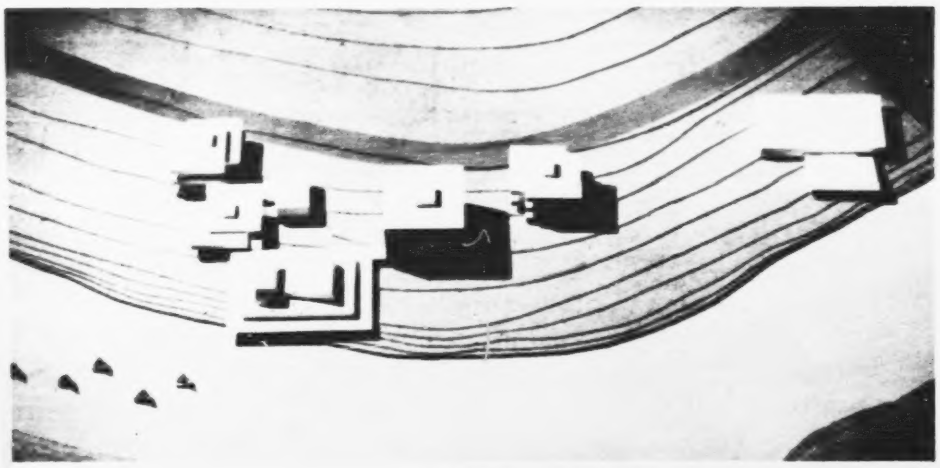


Typical floor plan

Elevation from river







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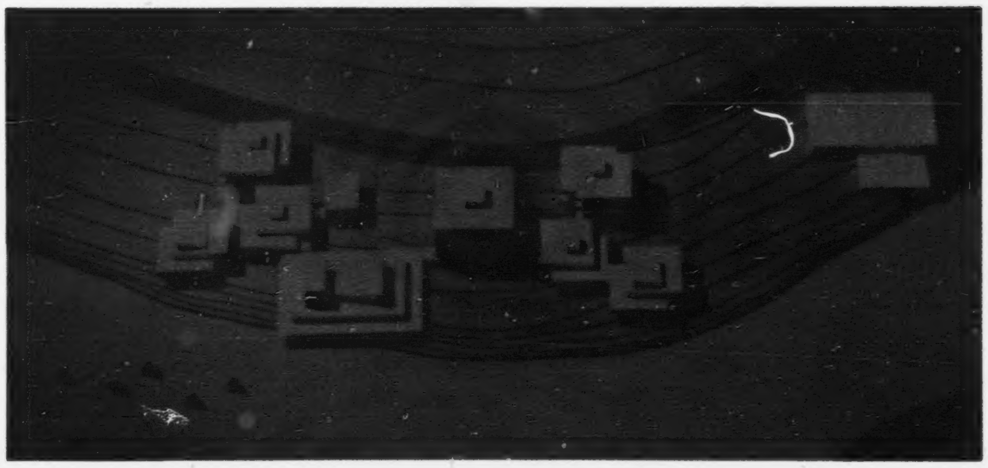

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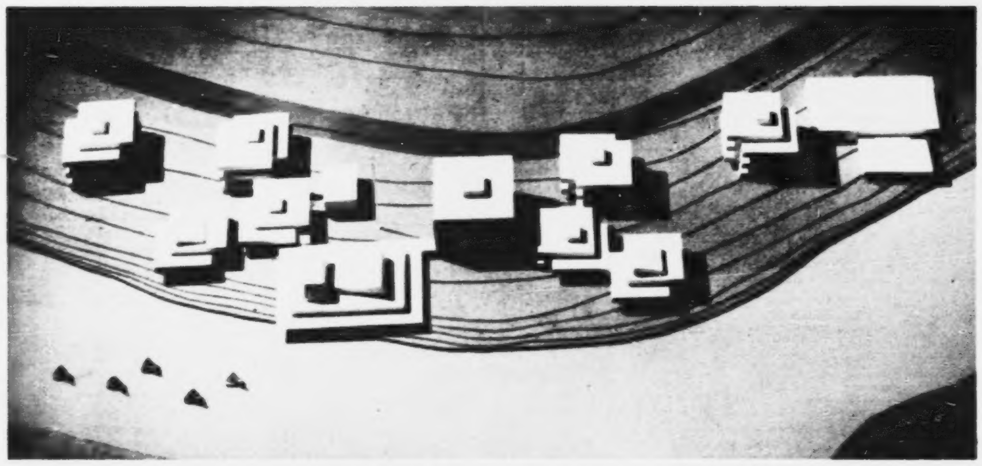
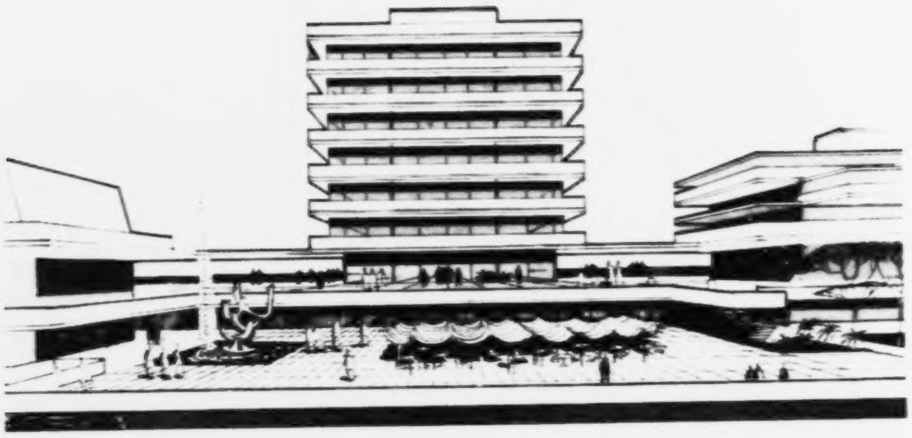


3

Stages of growth

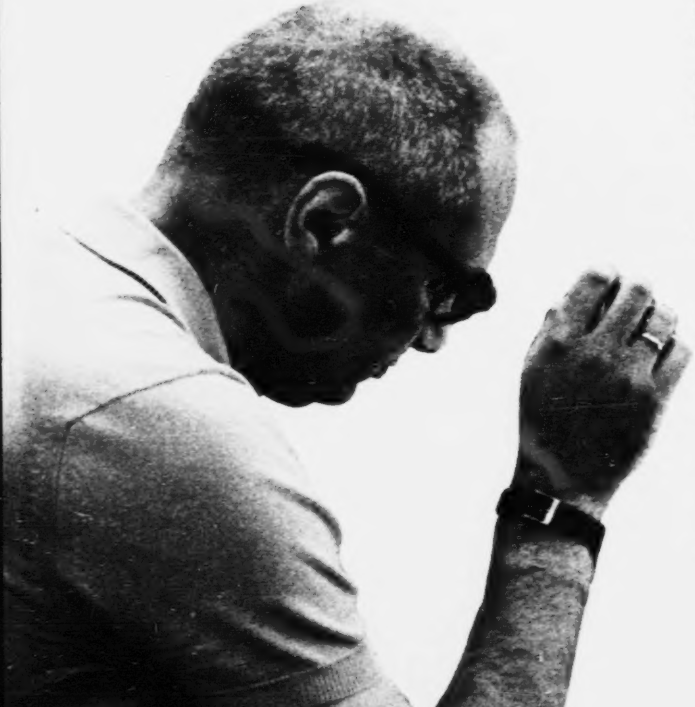


View from river

The plan, a development by a series of small, integrated buildings, on two plaza levels, can accommodate growth of Worsted Community College in orderly stages, generally building by building, as growth and economics dictate. It can be developed for as many as a thousand students at one time. Ultimately the area surrounding the college will become part of an urban renewal program, providing a community center to the west and a park across the river.

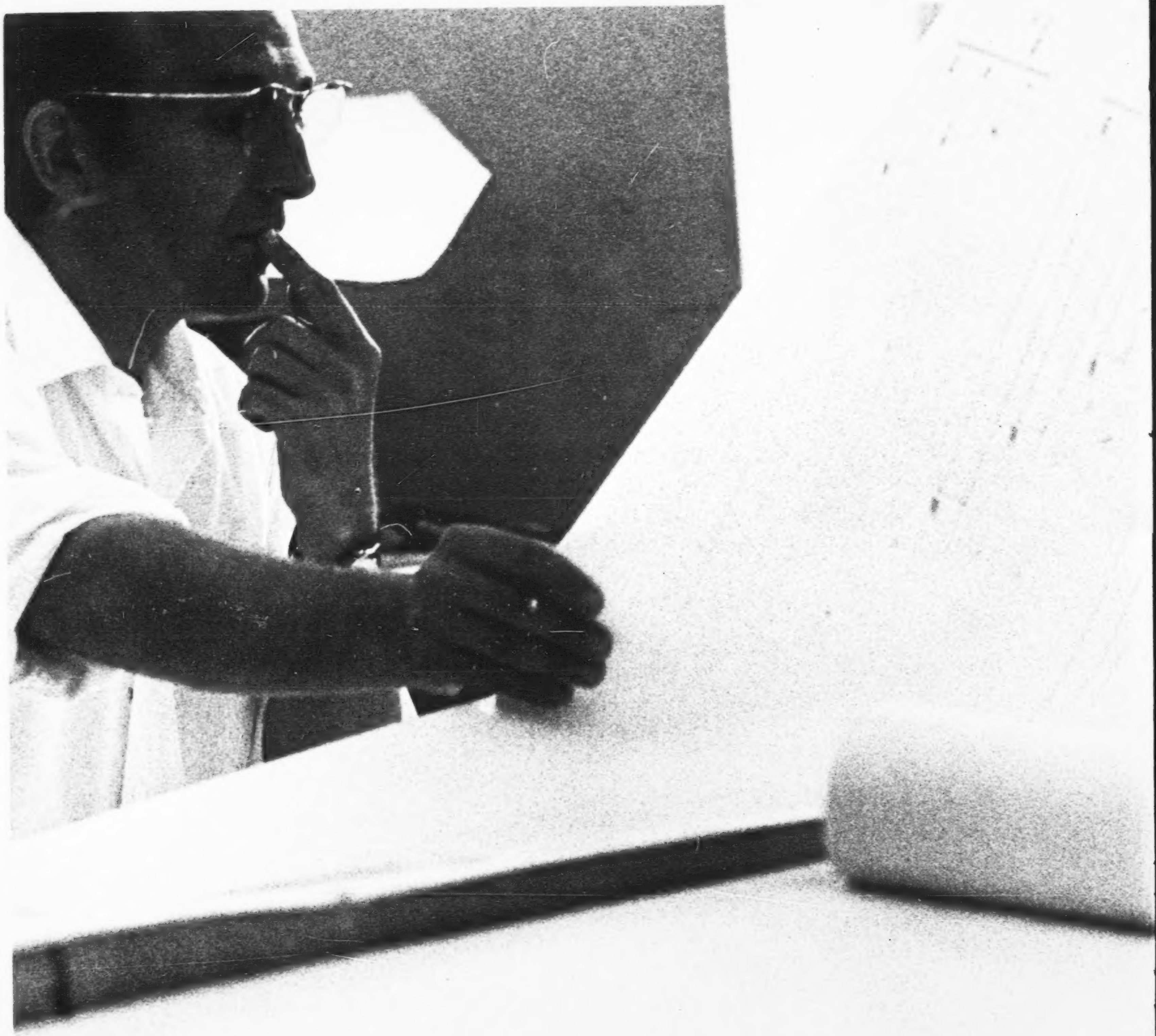
Beneath the plaza, related to landscaped courts and lightwells, is a parking structure which provides one car space for every two students. The garage will be built to serve as a community fallout shelter, making it possible to take advantage of federal funds.

The main feature of the cultural center is the library, or more properly, the resource center, a center for materials and resources of all kinds. It has an extensive area for mechanical and electronic equipment used in the college teaching program. This library is the focal point of the campus and center of the area's cultural life.



ARCHITECT: LINN SMITH

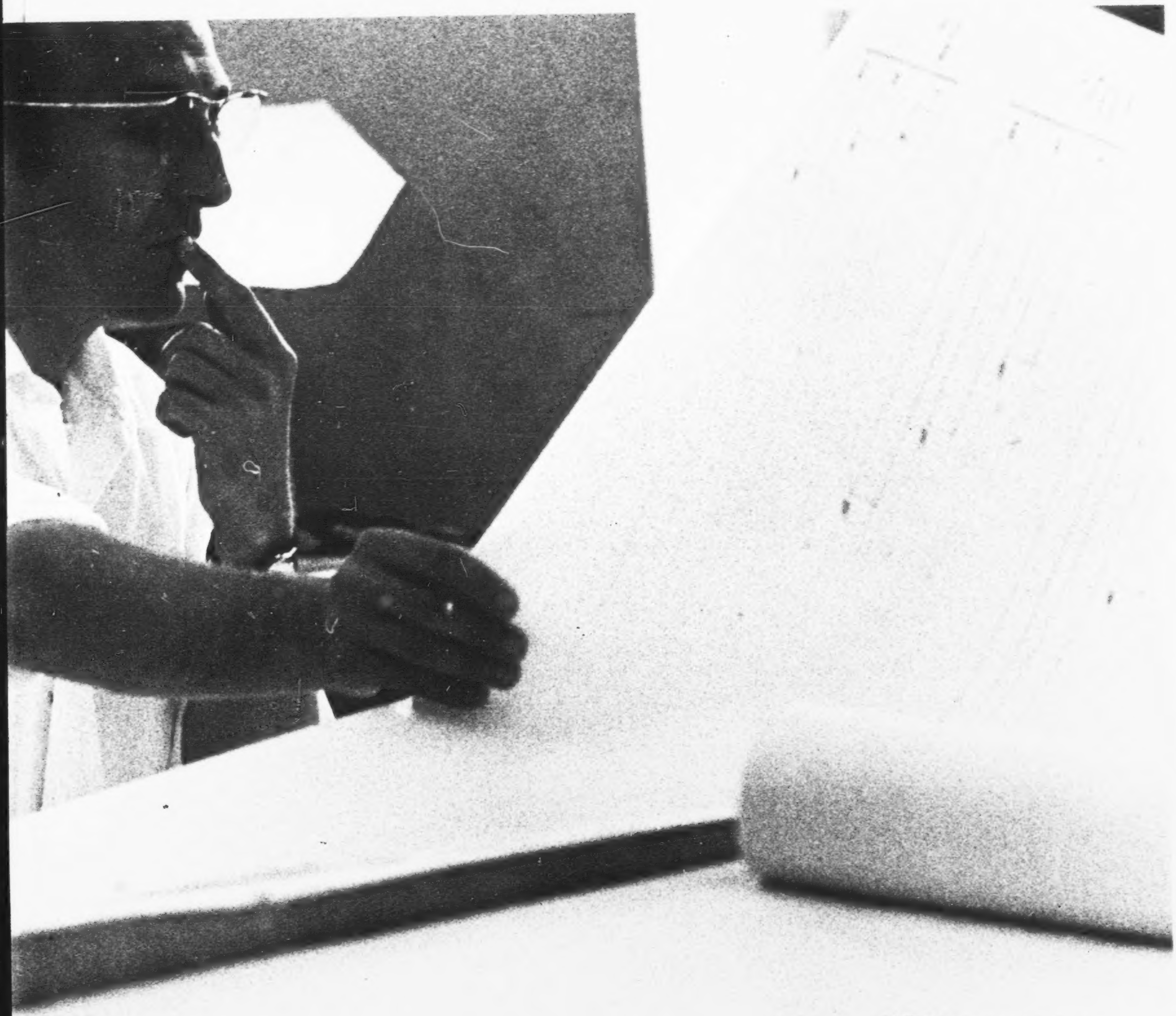
Linn Smith and Bill Demiene of Linn Smith Associates, Incorporated, Birmingham, Michigan, worked a split shift. Mr. Smith developed the educational and architectural concepts, and Bill Demiene and the student team prepared the presentation drawings and model. Mr. Smith has been a leader in the translation of teaching theories into educational architecture. He has just finished a term as director of the American Institute of Architects and was elected to the College of Fellows in 1962.



Section I

AN EDUCATIONAL SANCTUARY BUILT FROM HOME-MADE COMPONENTS.

FLAT

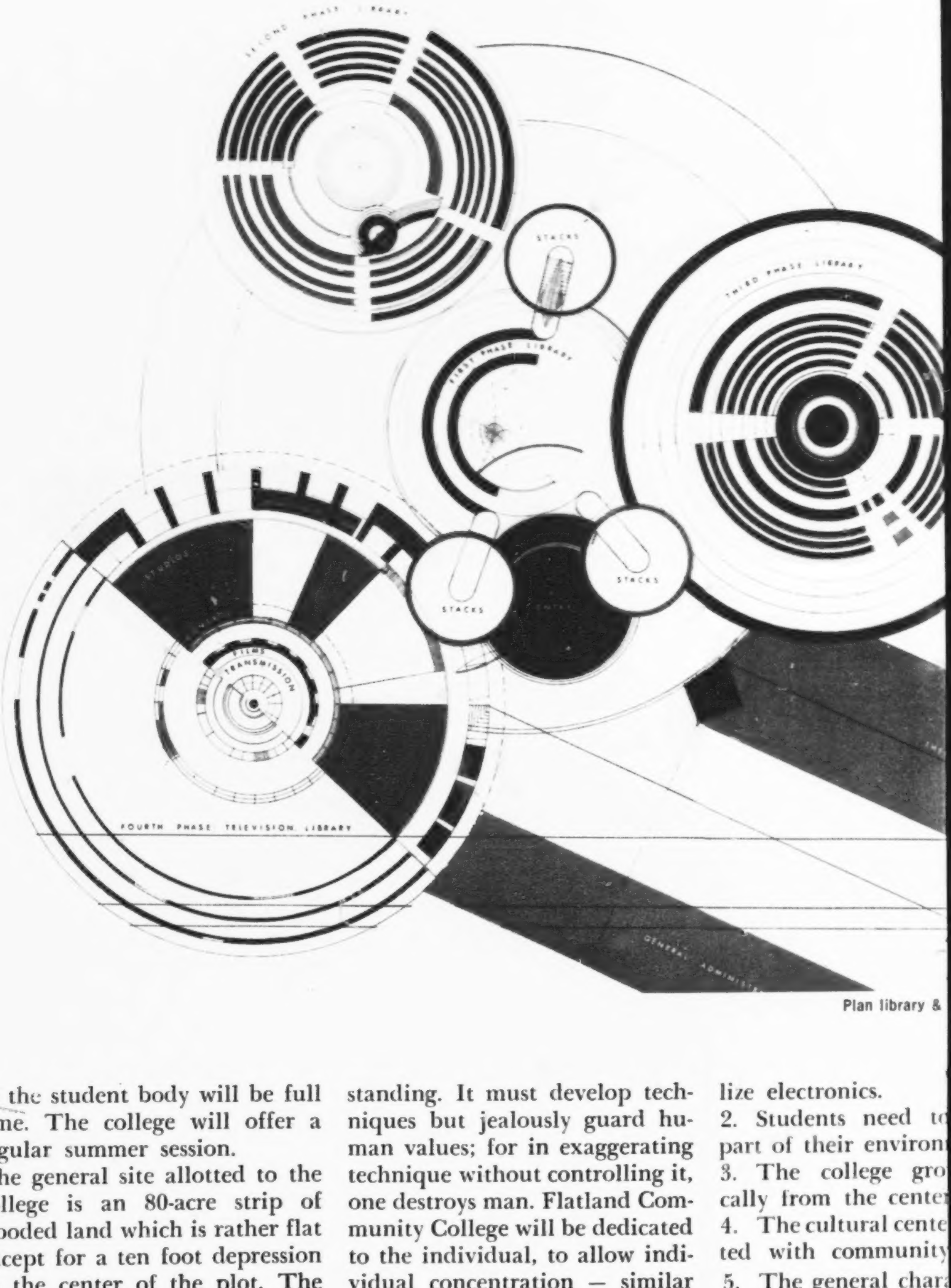


Section 2

AN EDUCATIONAL SANCTUARY BUILT FROM HOME-MADE COMPONENTS.

FLAT

Section I



Plan library &

Flatland is a town of 1000 population located 15 miles from Memphis, Tennessee. The economy is switching from agriculture to industry. A slight population increase is expected within the next fifteen years.

Flatland Community College will have an initial enrollment of 600 students drawn from a 60-mile radius. About half the student body will be enrolled in a liberal arts or transfer program; the rest in terminal-technical curricula. Seventy-five per cent of the student body will be full time. The college will offer a regular summer session.

The general site allotted to the college is an 80-acre strip of wooded land which is rather flat except for a ten foot depression in the center of the plot. The climate is mild in winter and warm and humid in July and August, the only critical months of the year.

"A college, through education, helps the community and the individual toward self-understanding. It must develop techniques but jealously guard human values; for in exaggerating technique without controlling it, one destroys man. Flatland Community College will be dedicated to the individual, to allow individual concentration – similar to a sanctuary or monastary – and to serve as a laboratory of ideas for personal experimentation and creativity."

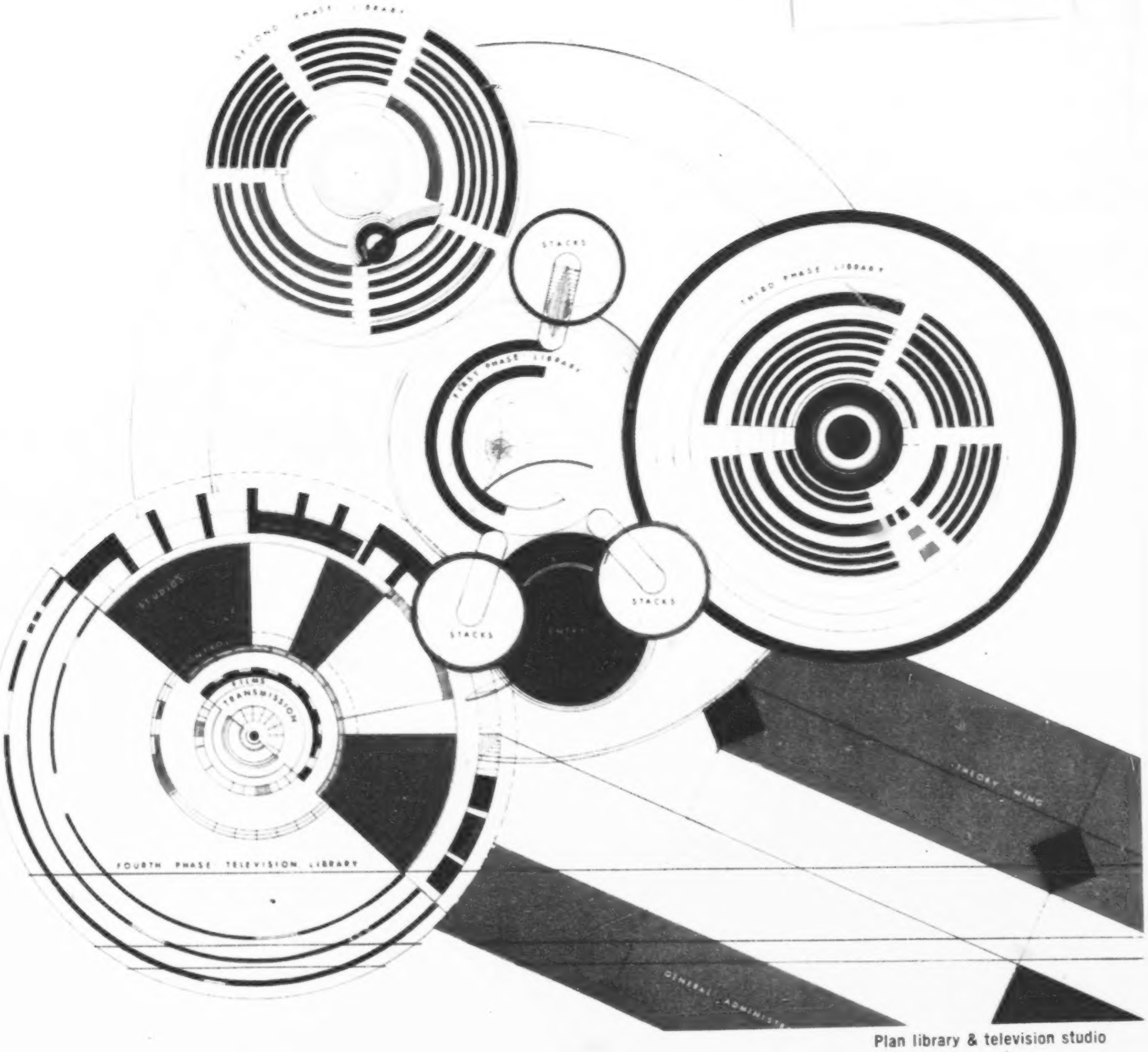
The architecture is based on the following premises:

1. New teaching techniques utilize electronics.
2. Students need t
part of their environ
3. The college gro
cally from the cente
4. The cultural cente
ted with community
5. The general char
college is appropriate
matic conditions.
6. Members of the
can construct buildi
ents at home.

Since the design is pr
revised teaching me

LAN

Section 2


SECOND PHASE LIBRARY
STACKS
THIRD PHASE LIBRARY
FIRST PHASE LIBRARY
STUDIOS
CONTROL
FILMS
TRANSMISSION
STACKS
ENTRY
STACKS
THEORY WING
FOURTH PHASE TELEVISION LIBRARY
GENERAL ADMINIST

Plan library & television studio

l is a town of 1000 popu- located 15 miles from is, Tennessee. The econ- switching from agricul- industry. A slight popu- ncrease is expected within t fifteen years.

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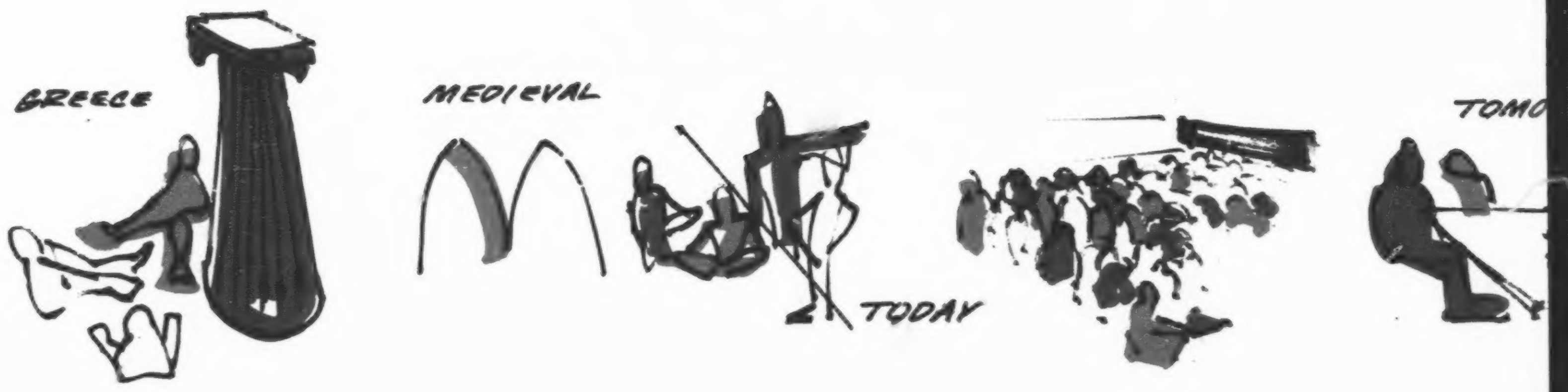
The architecture is based on the following premises:

1. New teaching techniques utilize electronics.
2. Students need to "own" a part of their environment.
3. The college grows organically from the center out.
4. The cultural center is integrated with community activities.
5. The general character of the college is appropriate to the climatic conditions.
6. Members of the community can construct building components at home.

Since the design is predicated on revised teaching methods, it is

LAND

Section I



well to discuss these in detail. According to the architect, the present system of education is based on two crumbling pillars: the book and the teacher. The book has been the only means to record thought in visual form, but it has come to have less and less importance and may even disappear or at least change form completely. New techniques are evolving which add more efficient methods of storage and retrieval of human knowlege. The teacher – sometimes good, rarely very good, very often mediocre – is flooded with work. He no longer knows his students. The "subject to be treated" submerges the "problems of the student." Some students are privileged to learn easily with a good teacher, while others pretend to learn under a less adept teacher.

The present system strays too far from the ideal of education in which a master teacher uses his potential to inspire a maximum number of students. A different system is now available which comes closer to the ideal by using modern electronic devices. Yesterday's dream–to record and store by oral or visual means anything from microscopic phenomena to events occurring thousands of miles away–is at last being used as a means of instruction. Seeing on film the process of cell division, commented upon by an excellent teacher, instructs more vitally than the 20 or 30 pages necessary to describe it. It is the same for languages or philosophy. The subject program can be packed away, often taking very little room, and kept indefinitely. It can then be broadcast and reproduced as often as necessary. It is against nature not to use such means to the maximum.

Advantages accrue of themselves. Each course is programmed to provide audio-visual aides which portray the subject matter from different view points and in different levels of
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aptitudes and ai
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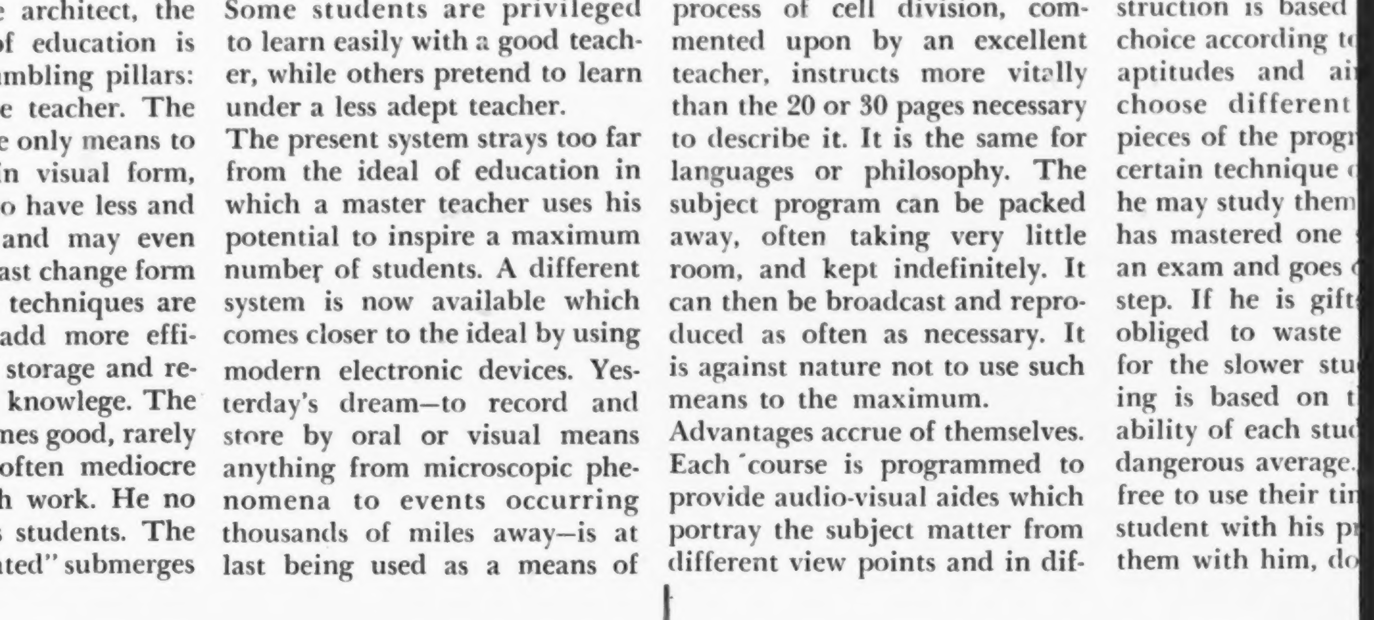
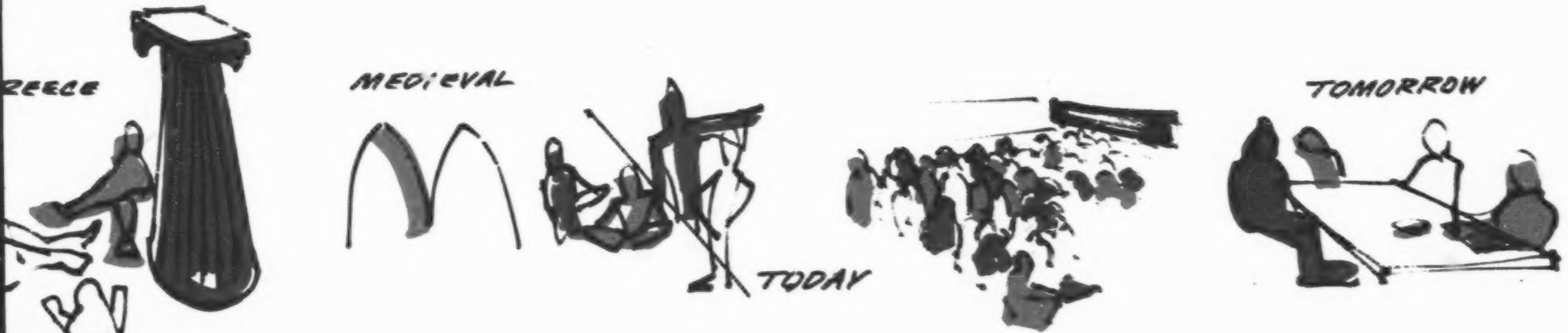

Section library & television studio



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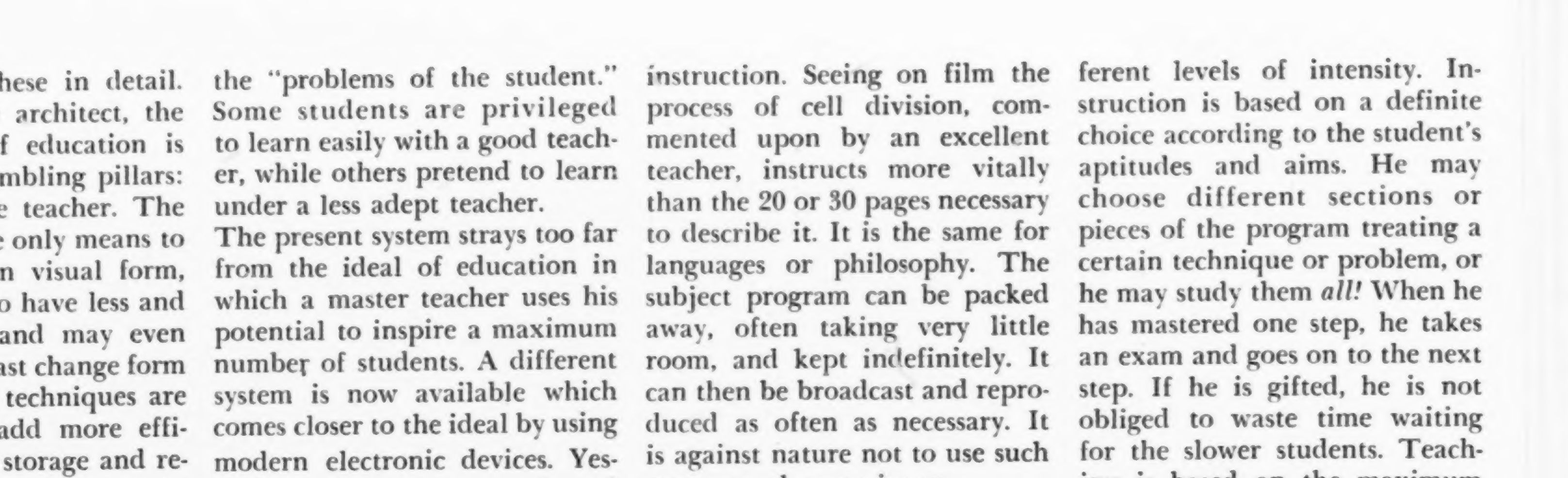
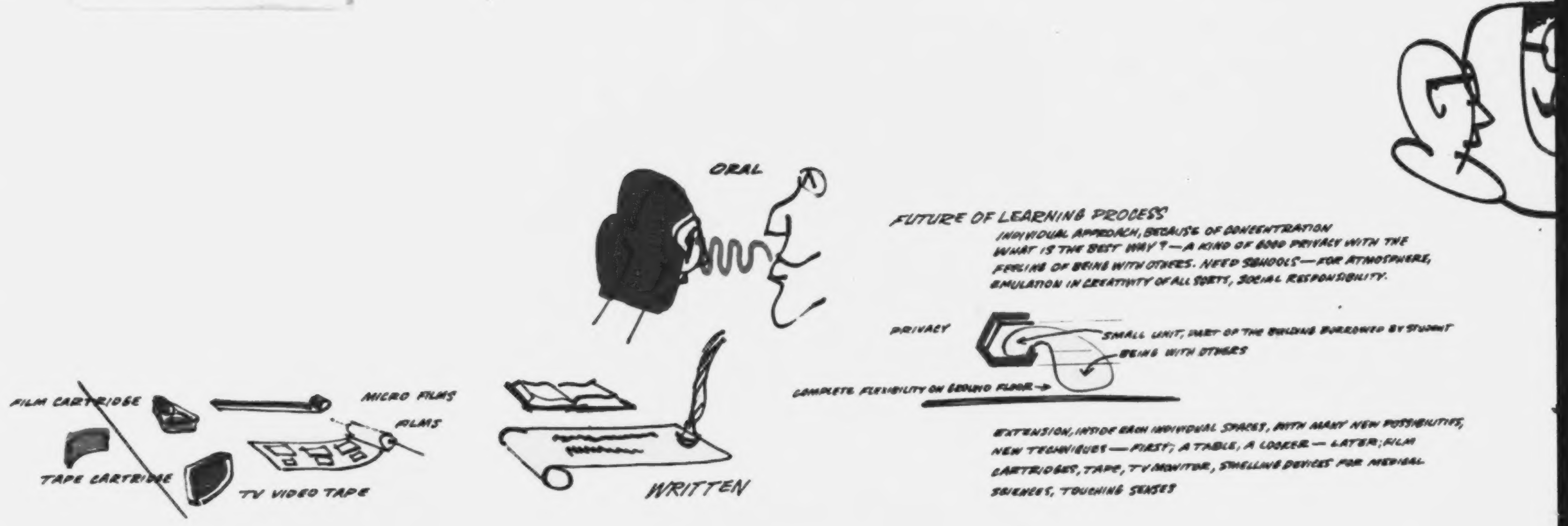

Section library & television studio

Section I


ORAL
FUTURE OF LEARNING PROCESS
INDIVIDUAL APPROACH, BECAUSE OF CONCENTRATION
WHAT IS THE BEST WAY? — A KIND OF GOOD PRIVACY WITH THE
FEELING OF BEING WITH OTHERS. NEED SCHOOLS — FOR ATMOSPHERE,
EMULATION IN CREATIVITY OF ALL SORTS, SOCIAL RESPONSIBILITY.
PRIVACY
SMALL UNIT; PART OF THE BUILDING BORROWED BY STUDENT
BEING WITH OTHERS
COMPLETE FLEXIBILITY ON GROUND FLOOR →
EXTENSION, INSIDE EACH INDIVIDUAL SPACES, WITH MANY NEW POSSIBILITIES,
NEW TECHNIQUES — FIRST; A TABLE, A LOCKER — LATER; FILM
CARTRIDGES, TAPE, TV MONITOR, SMELLING DEVICES FOR MEDICAL
SCIENCES, TOUCHING SENSES
FILM CARTRIDGE
MICRO FILMS
FILMS
TAPE CARTRIDGE
TV VIDEO TAPE
WRITTEN

improve their courses. Education becomes more precise and individual. Repetitions are avoided. The energy of student and teacher is more efficiently utilized. Teacher and teams of specialists can review and pore over subject programs in light of new techniques and discoveries which are broadcast daily in the same way stock market quotations are now telecast.

To express these new educational concepts involves three types of architectural spaces: (1) individual booths, (2) a library-cultural center with production and viewing rooms, and (3) special rooms and exhibition halls.

The booth for the individual has a minimum surface of 4′ x 3′6″ to include a work table and closet. This "belongs" to each student to give him a feeling of ownership and independence. It will be furnished with films, tapes, TV, video tape, and a telephone for direct selection of material from the library.

The booth is an integral part of a concrete beam element 64 feet long, the basic element of the whole project. There are eight booths housed in the hollow portion of each beam. Vertical circulation serves four booths on each side. These beams fit together in many combinations to form an infinite variety of spaces: large or small seminars, offices, large and small movements of students, projection booths, or even service rooms for electronic equipment. They give an architectural unity to the whole scheme and lower the cost of construction by duplication and prefabrication.

Special rooms are scattered in key locations of the college to facilitate live demonstrations in which large scale models and experiments demand special equipment. The demonstration materials are stored and brought out on conveyors to the instruction centers. The experiments are recorded on TV and r
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The library-cultural c
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create an outdoor th
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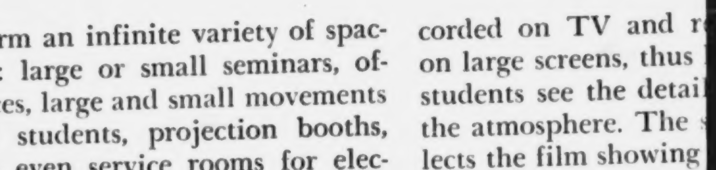
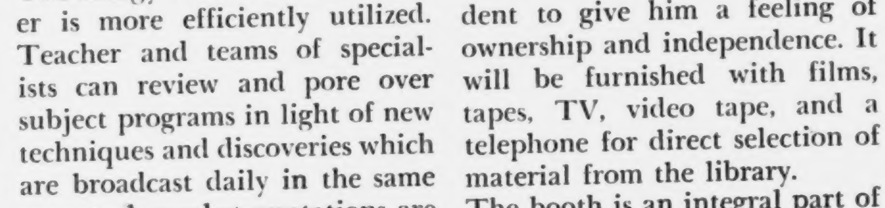
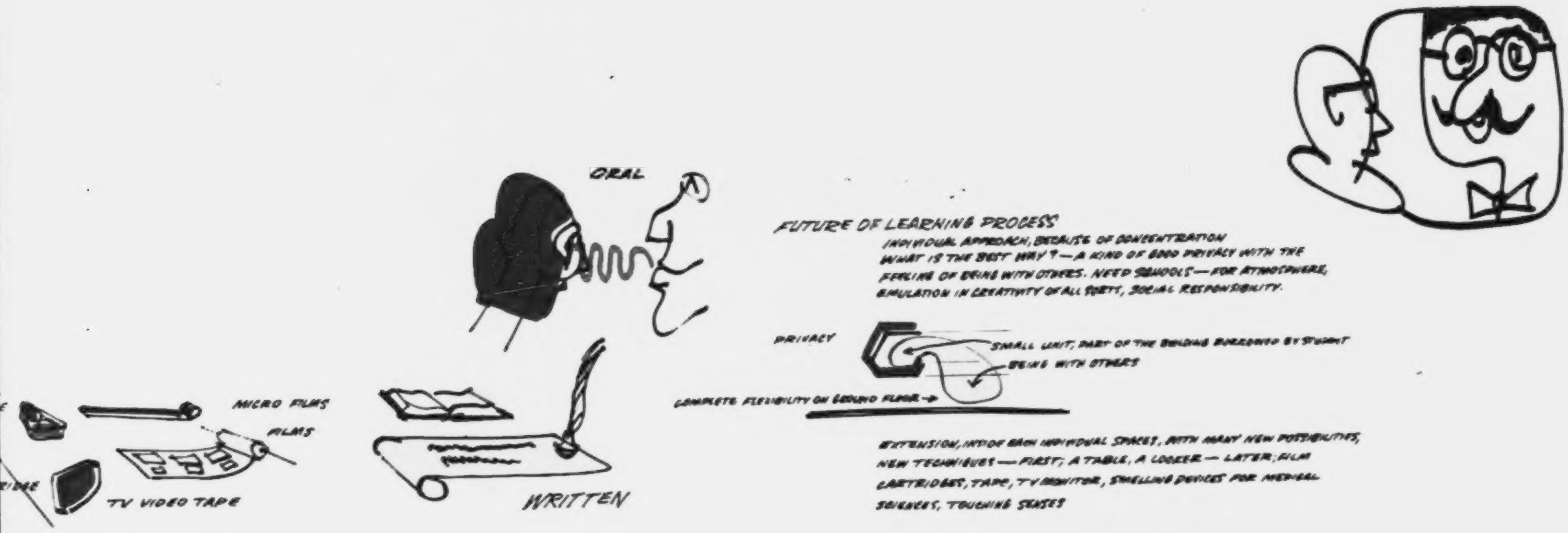
books, film, and micr


Section — double classroom unit



Section 2


ORAL
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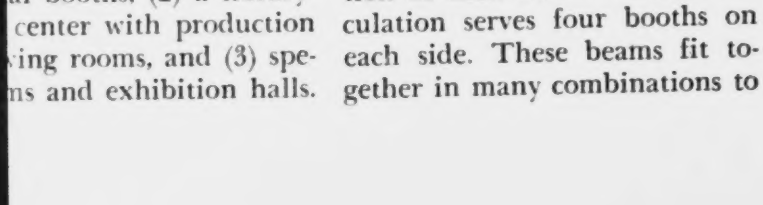
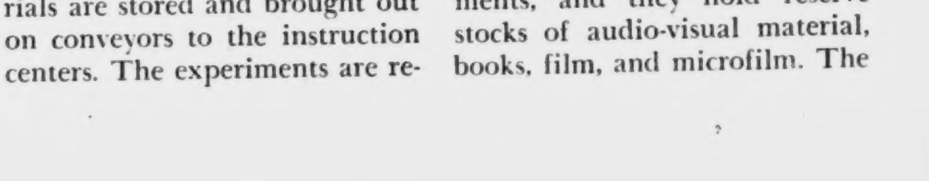
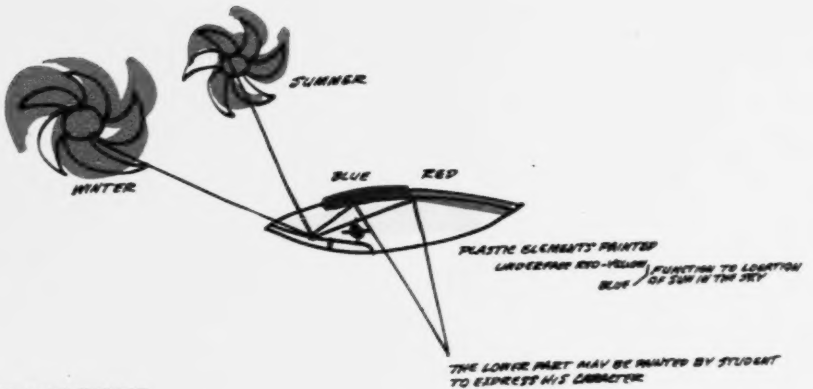
The library-cultural center — the tower cluster — is the gravitational center of the college and is directly linked to the town by a mall. The central depression, surrounded by trees, is used to create an outdoor theater. The towers are the only vertical elements, and they hold reserve stocks of audio-visual material, books, film, and microfilm. The



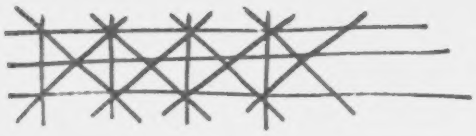


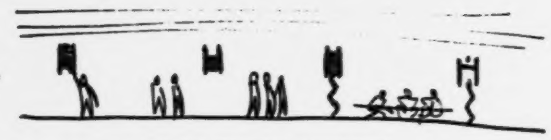
Section — double classroom unit

Section I

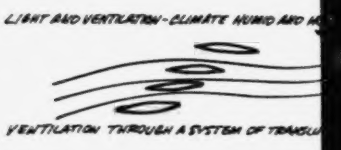

SUMMER
WINTER
BLUE
RED
PLASTIC ELEMENTS' PAINTED
UNDERFACE RED-YELLOW
BLUE
FUNCTION TO LOCATION OF SUN IN THE SKY
THE LOWER PART MAY BE PAINTED BY STUDENT TO EXPRESS HIS CHARACTER

FLEXIBILITY
DOUBLE SYSTEM OF GRID SUPERIMPOSED
90° AND 45° ANGLE. ▼ AUGMENTS NO. OF DIFFERENT TEACHING SPACES.





SLIDING VERTICAL PARTITIONS


LIGHT AND VENTILATION - CLIMATE HUMID AND H
VENTILATION THROUGH A SYSTEM OF TRANSLU

production center and the viewing and reading rooms are bowl-shaped and elevated above ground-level. The terraces under the production center are gathering places for students and during festivals can be used as stage sets.

The bowls are constructed of three rows of prefabricated elements set into place and held under compression with cables stretched around the outside. The roofs, made of very light plastic tubes parallel to the rays of the sun, are filled to eliminate direct rays in the reading rooms. The whole roof will be covered by a translucent sheet of plastic. Ventilation is through openings on the periphery of the bowls. The plan is based on flexibility (construction in stages according to need) and an electronic system of research in which students can request information by inserting punched cards in a machine. The production center has reserve stocks of materials for all courses and viewing rooms where students use the materials. Students may also take material to their rooms or work booths. At a later stage in technical advance, material can be chosen by remote control from points outside the center. The TV production center is directly linked to the library and becomes the research area for organizing and adapting the programmed courses of study. When a course is no longer up-to-date, it is erased and replaced immediately.

The production center contains two sections: the inner ring of production studios with moveable partitions, and the outer ring for administration, teachers' offices, and conference rooms. On the studio and storeroom level, the various services are linked by galleries to the central services.

Each group of buildings is arranged around an interior court, an area of calm, which turns its back on the highway and road. The buildings near the railroad are for heavy equi
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TV sets, boats or pi
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and the placing of
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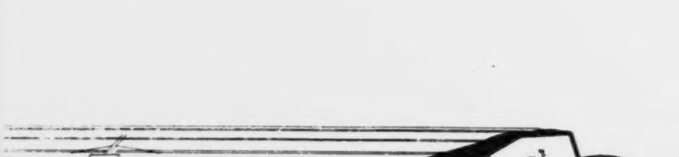
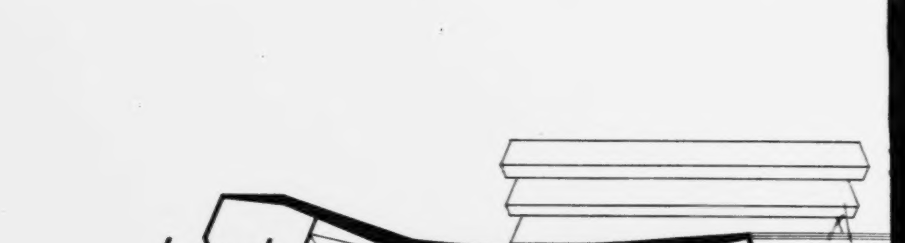
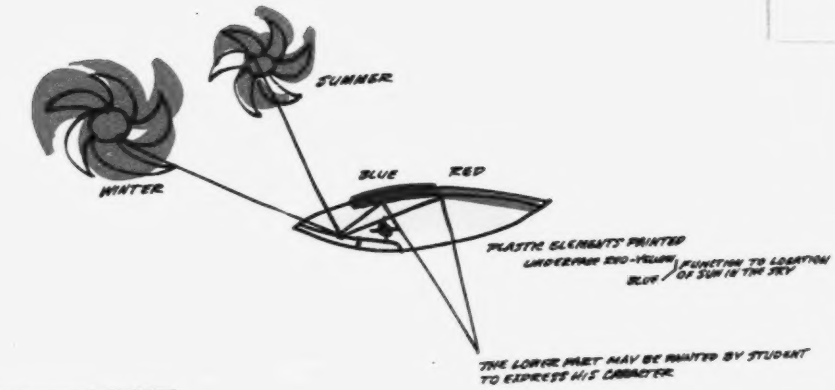




Section — typical classroom & laboratory

Section 2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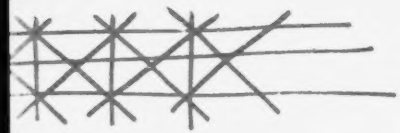
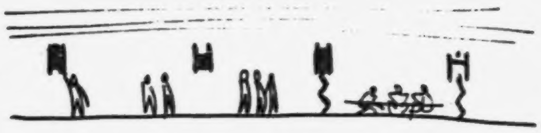
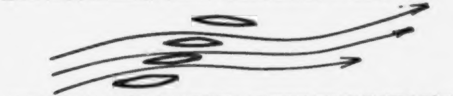




SLIDING VERTICAL PARTITIONS


LIGHT AND VENTILATION - CLIMATE HUMID AND HOT IN AUGUST - JULY
VENTILATION THROUGH A SYSTEM OF TRANSLUCENT PLASTIC PANEL 66' LONG.

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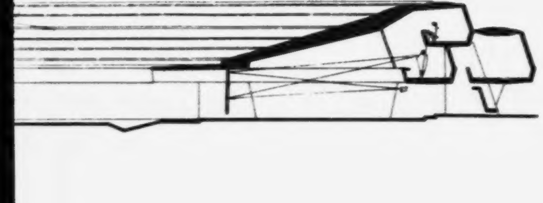
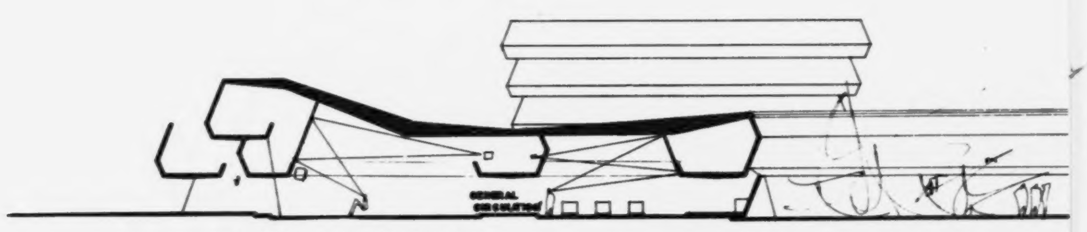
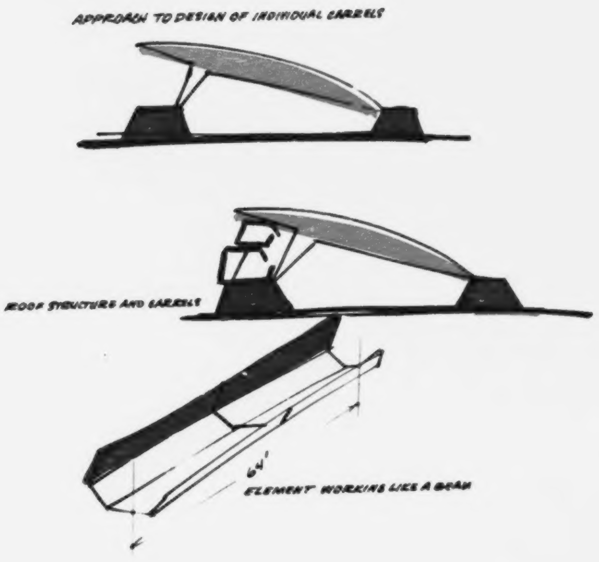
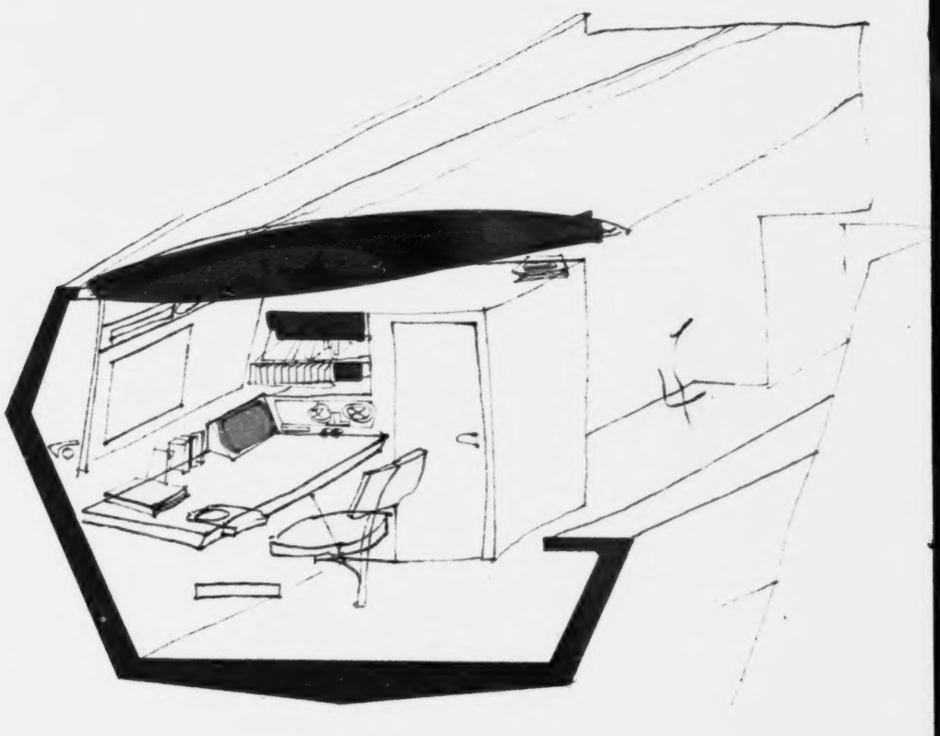
Each group of buildings is arranged around an interior court, an area of calm, which turns its back on the highway and road. The buildings near the railroad are for heavy equipment, for large gatherings, and for the supplies for the agricultural college. The community will be asked to help construct the college, thus linking the college and the community. The architecture, therefore, has been designed for maximum utilization of prefabricated elements. The community constructs the roof elements and student booths from kits similar to those supplied for assembling TV sets, boats or pieces of furniture. The community will provide the manpower, and the contractor will handle the heavy construction, the foundations and the placing of the various elements.

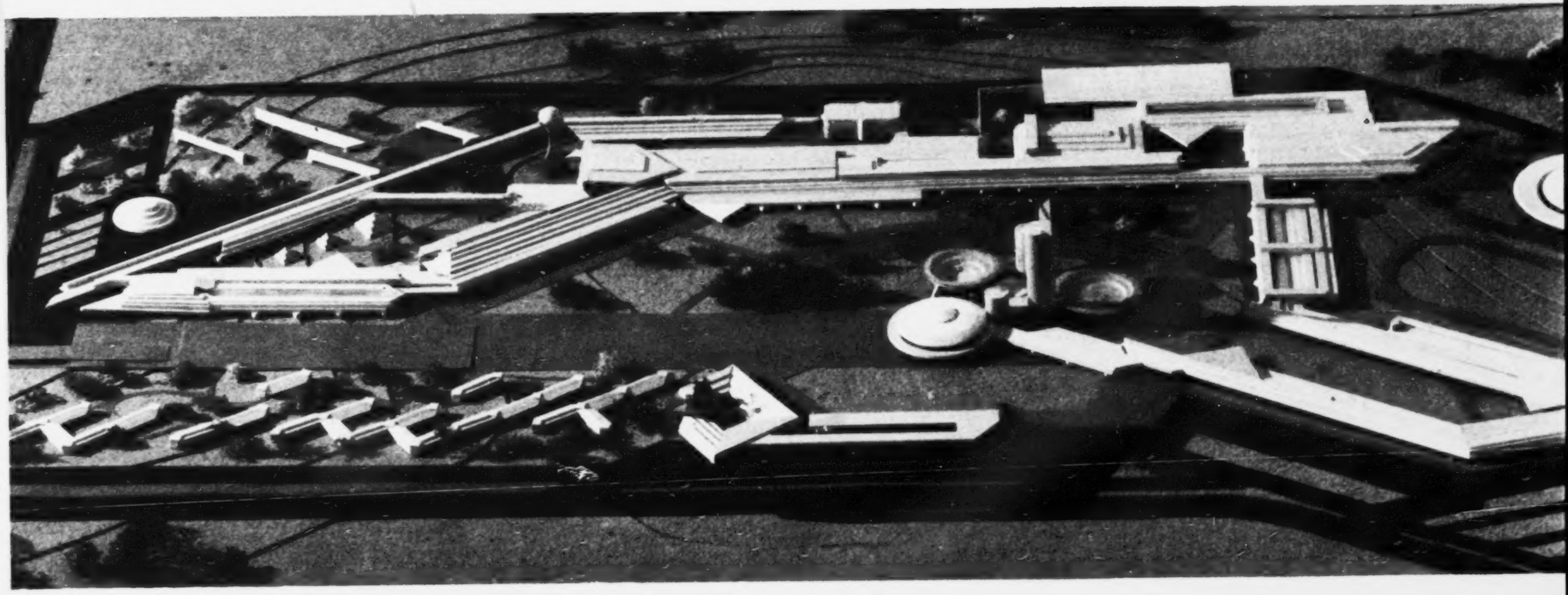


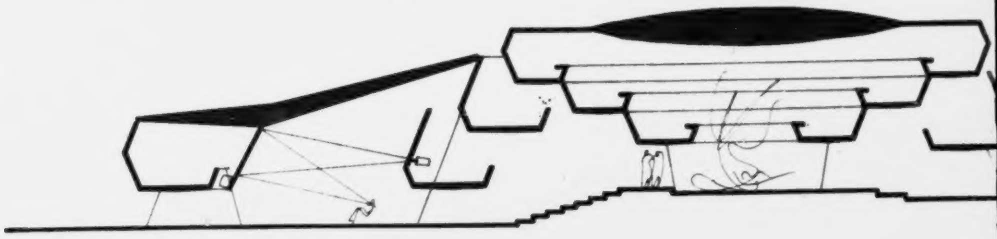

GENERAL CIRCULATION

Section — typical classroom & laboratory

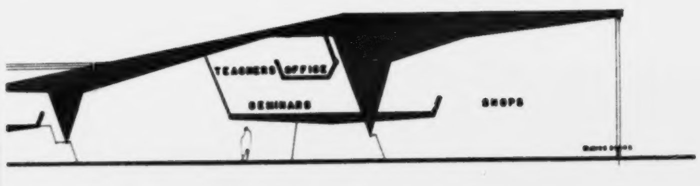

APPROACH TO DESIGN OF INDIVIDUAL CARRELS
ROOF STRUCTURE AND CARRELS
6'4"
ELEMENT WORKING LIKE A BEAM

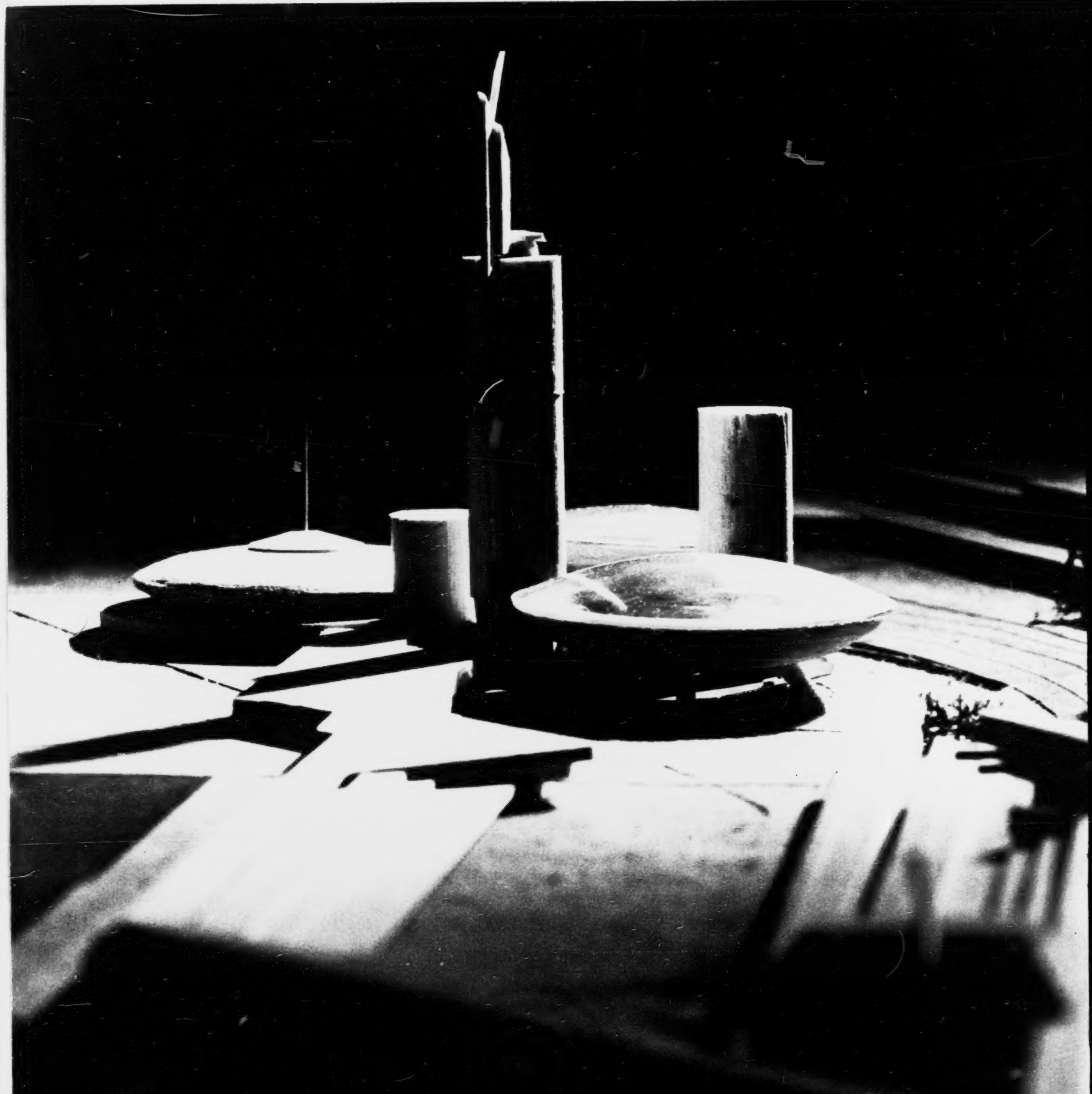






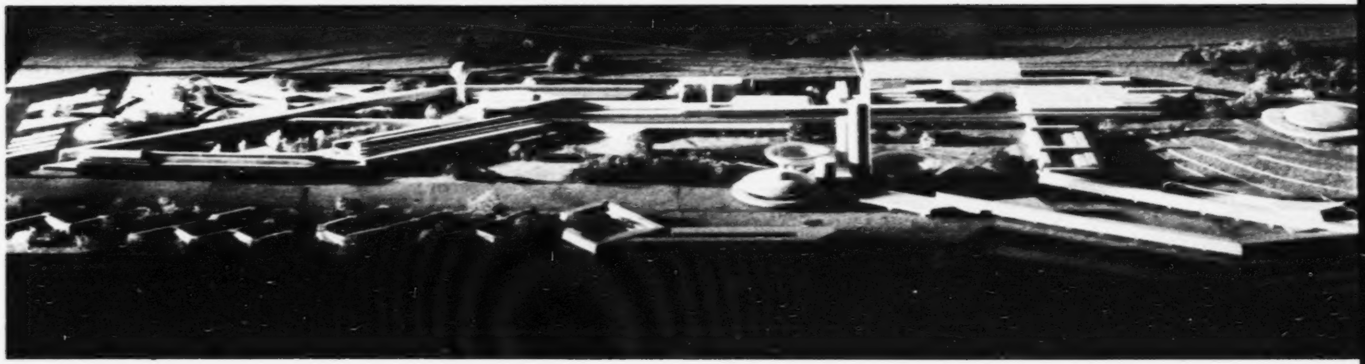
Section — typical classroom & shop

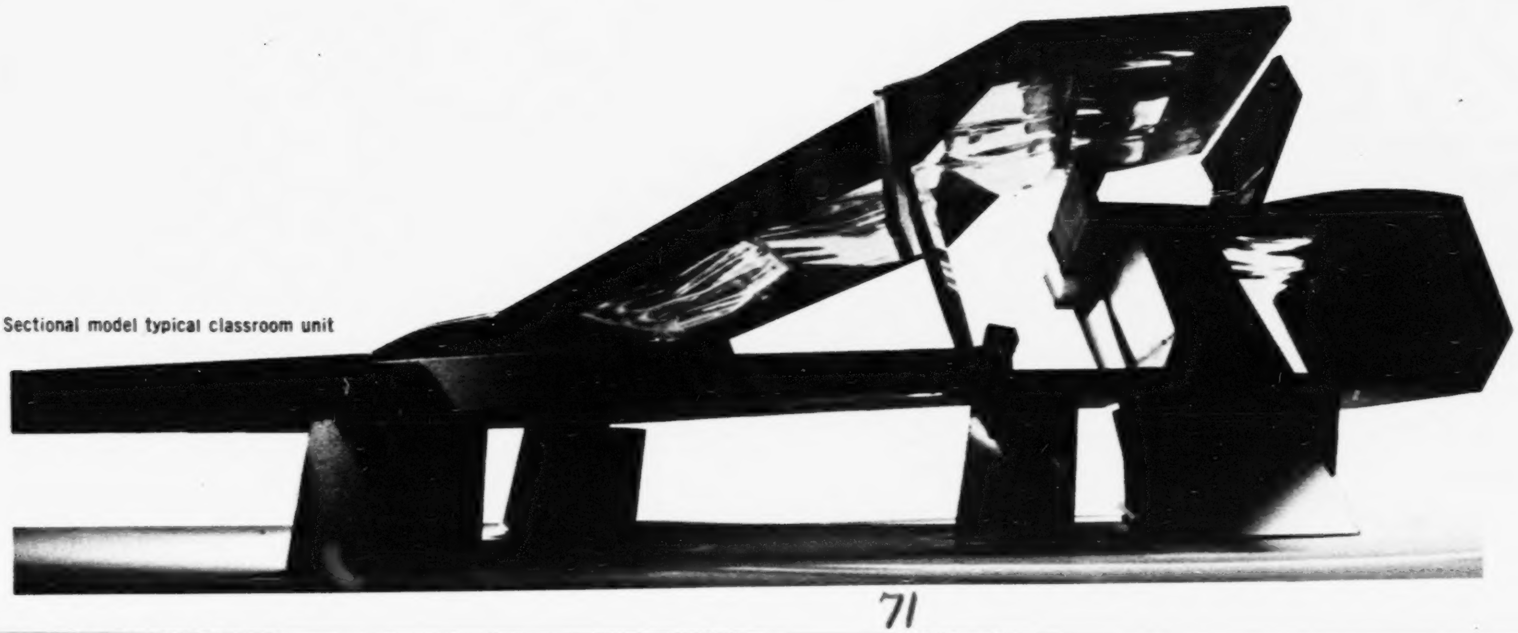

TEACHERS OFFICE
SEMINARS
SHOPS



ARCHITECT: EDMOND LAY

Edmond Lay, D.P.L.G., arrived at the conference accompanied by Dick Loarie, one of his graduate students from Cornell University, where Mr. Lay has spent the last two years as a visiting professor from France. Language proved to be no barrier, as his intense enthusiasm and dedication spread as wildfire. His conceptual drawings demanded 4′ x 16′ tables instead of drafting tables, and crayons and chalk instead of pencils. He was educated in France, but his projects are international in scope and include everything from Moslem dwellings in Algeria to a bank in Cairo and schools in France.



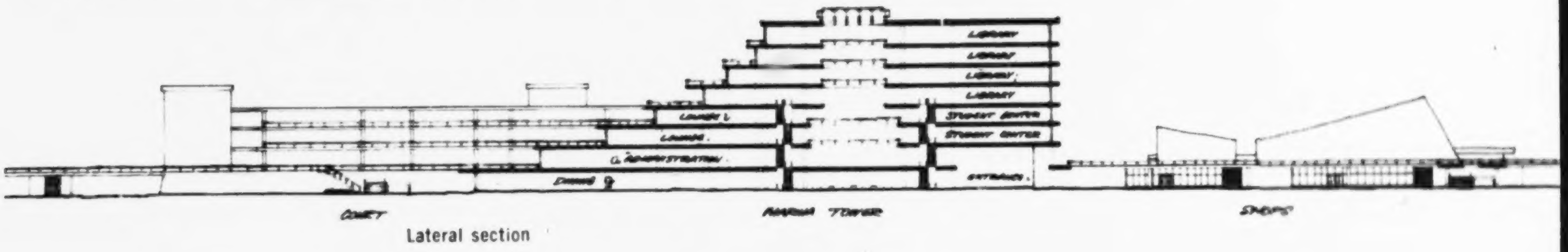


Sectional model typical classroom unit

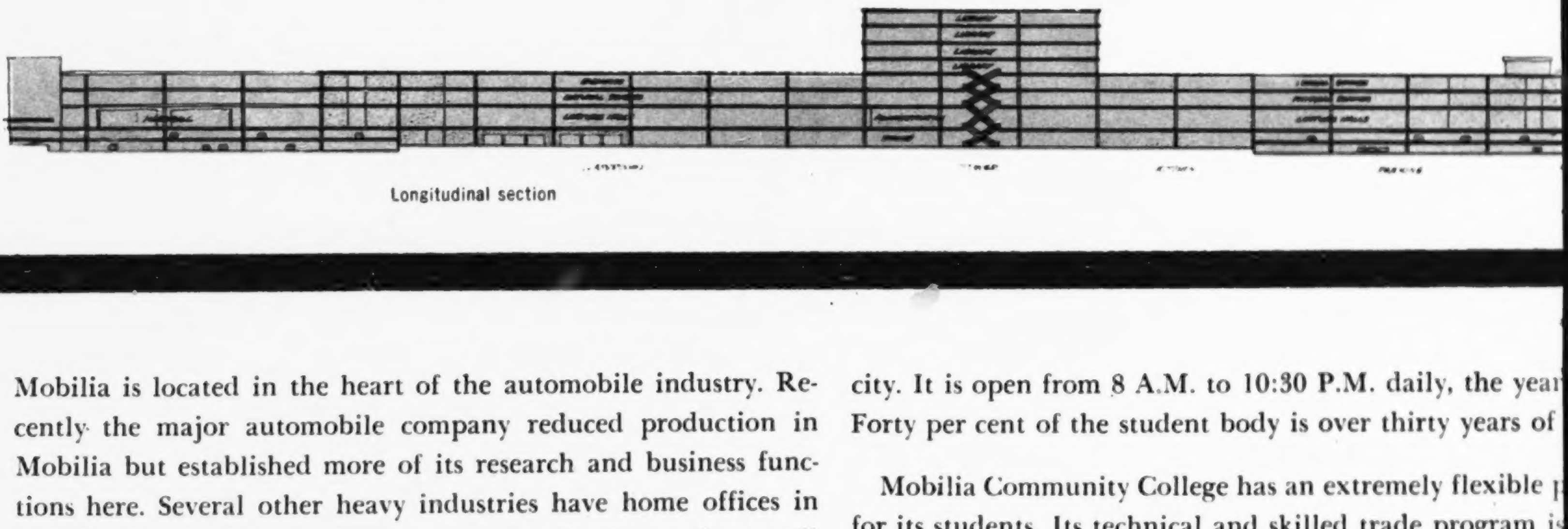
Section I

MOBILia

A 10,000 STUDENT METROPOLITAN COLLEGE WITH ITS OWN SHOPPING CENTER.



Lateral section



Longitudinal section

Mobilia is located in the heart of the automobile industry. Recently the major automobile company reduced production in Mobilia but established more of its research and business functions here. Several other heavy industries have home offices in Mobilia. During the past decade the population has made a small increase, but little further growth is anticipated beyond the present 120,000. There are no great extremes of wealth, and the city is mainly single-family dwellings. The heart of the city is being converted into a cultural, civic, and educational center, and the major automobile company has donated many undeveloped acres for this project.

The community has always taken great interest in its school system and has a fortunate tax base to support it. The new Mobilia Community College is a long-sought addition to the city. It is open from 8 A.M. to 10:30 P.M. daily, the yea
Forty per cent of the student body is over thirty years of

Mobilia Community College has an extremely flexible
for its students. Its technical and skilled trade program is
the most extensive in the country. Within two years the
enrollment will soar to more than 10,000 students, of who
will be part time. Over 6,000 will be attending adult ed
programs. Sixty per cent of Mobilia's high school gradua
seek further training and education, and about half wil
in Mobilia Community College.

Within three years the faculty will total 350: 100 will
time, 150 part time, and an additional 100 will be pa
teachers in adult education.

MOBILIA

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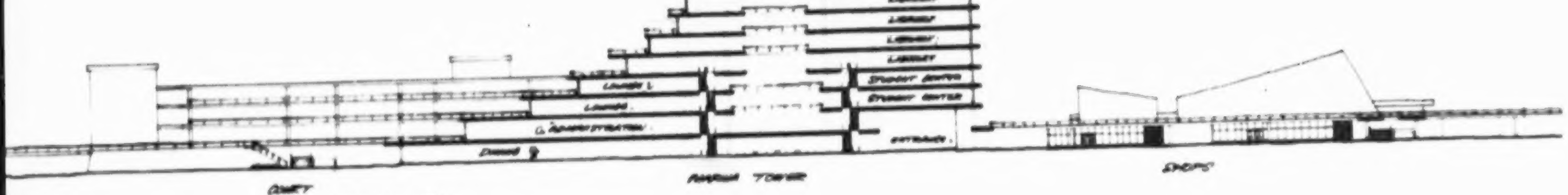
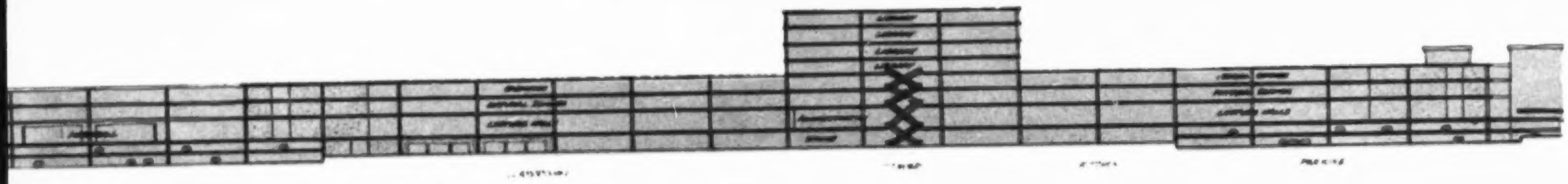


Lateral section



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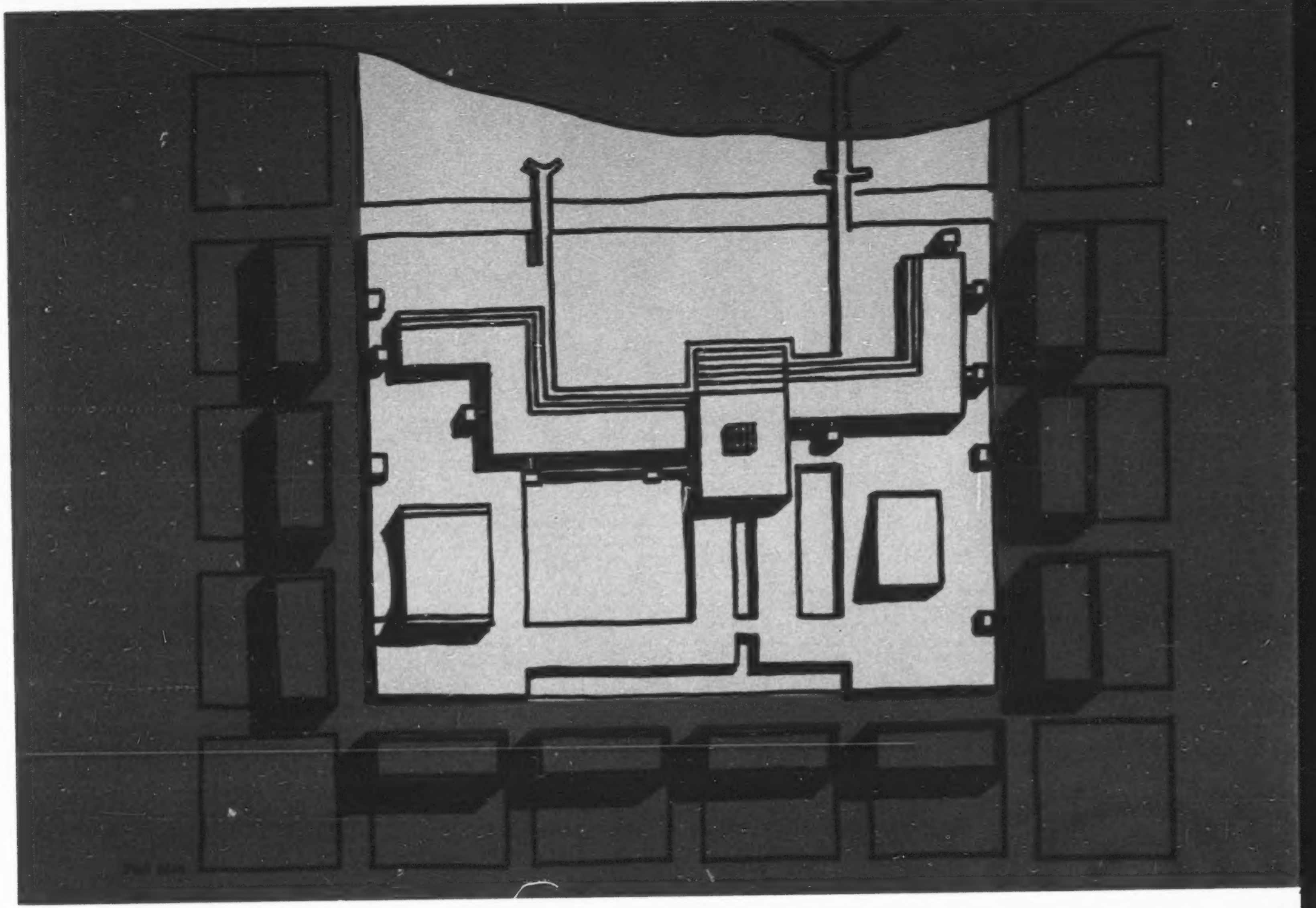
Mobilia Community College has an extremely flexible program for its students. Its technical and skilled trade program is one of the most extensive in the country. Within two years the college enrollment will soar to more than 10,000 students, of whom 7,000 will be part time. Over 6,000 will be attending adult education programs. Sixty per cent of Mobilia's high school graduates will seek further training and education, and about half will enroll in Mobilia Community College.

Within three years the faculty will total 350: 100 will be full time, 150 part time, and an additional 100 will be part time teachers in adult education.



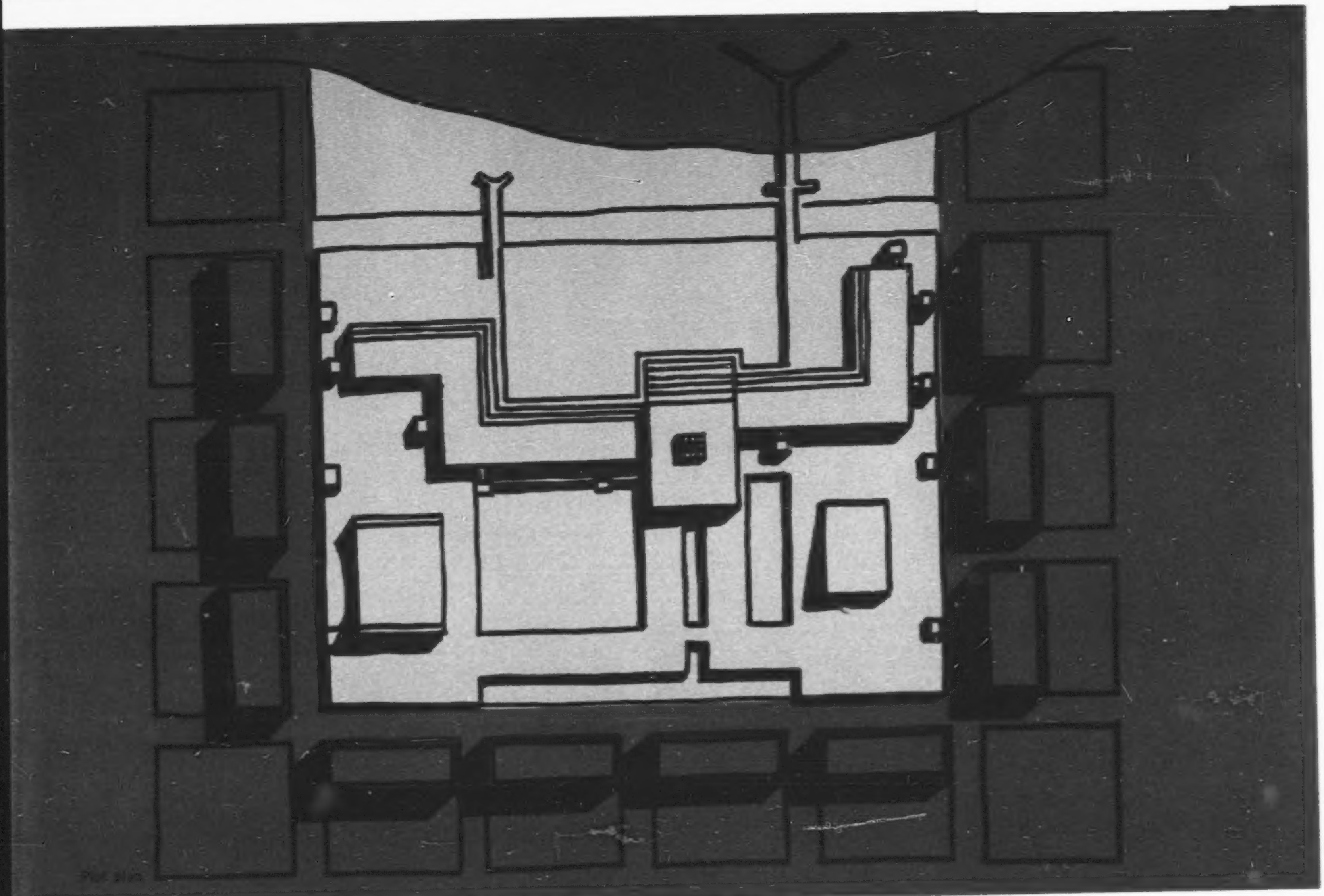
SOLUTION To utilize the lake front site in the city center, the architecture of Mobilia Community College extends the vista of the lake into the city by the openness created by the placement of the buildings and the addition of garden courts and terraces. The college tries to hold the students on campus by creating social areas on the ground level where students and members of the community may intermingle.

The architecture has these relationships to the site:

1. The building relates to the lake and park.
2. A feeling of openness is created for the center of the city.
3. Auto traffic flows easily onto campus parking facilities.
4. Skylighted covered walks from the parking areas and pedestrian approaches pass through gardens and terraces en route to the college.
5. Controlled shopping on campus eliminates the problems of speculative shops that would otherwise arise just off campus.
6. The gymnasium and auditorium are oriented toward the city for community access.

The preceding relationships are incorporated into buildi design by these means:

1. The library is the symbolic center of the college. libraries are not desirable in the initial stages of ment.
2. Instructional areas are flexible. Static spaces are flexible areas so they won't interfere with changes. P are moveable.
3. Like functions are grouped together for economy ar minimum of special equipment and utilities (for and social sciences); (b) specialized instructional a bility: (a) non-specialized instructional areas that re quiring special equipment and utilities (science la shops); (c) smaller study areas for faculty offices. and conference rooms, and individual study areas dents; and (d) large lecture halls.
4. Since Mobilia is a commuter's college and no stude on campus, many lounges and locker spaces are p



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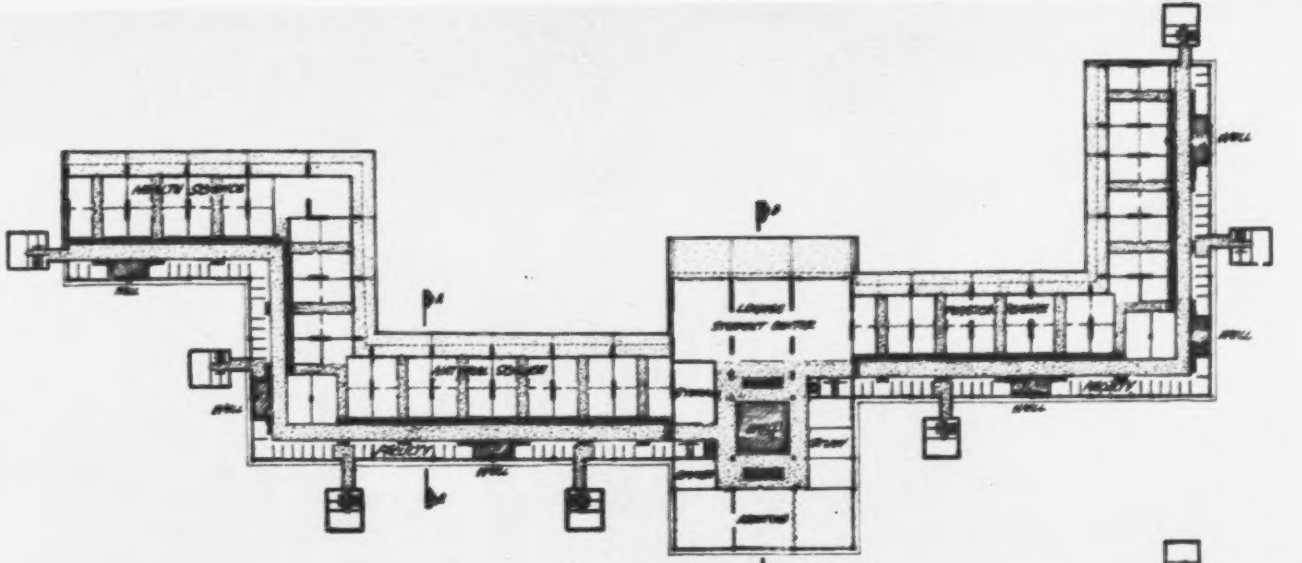
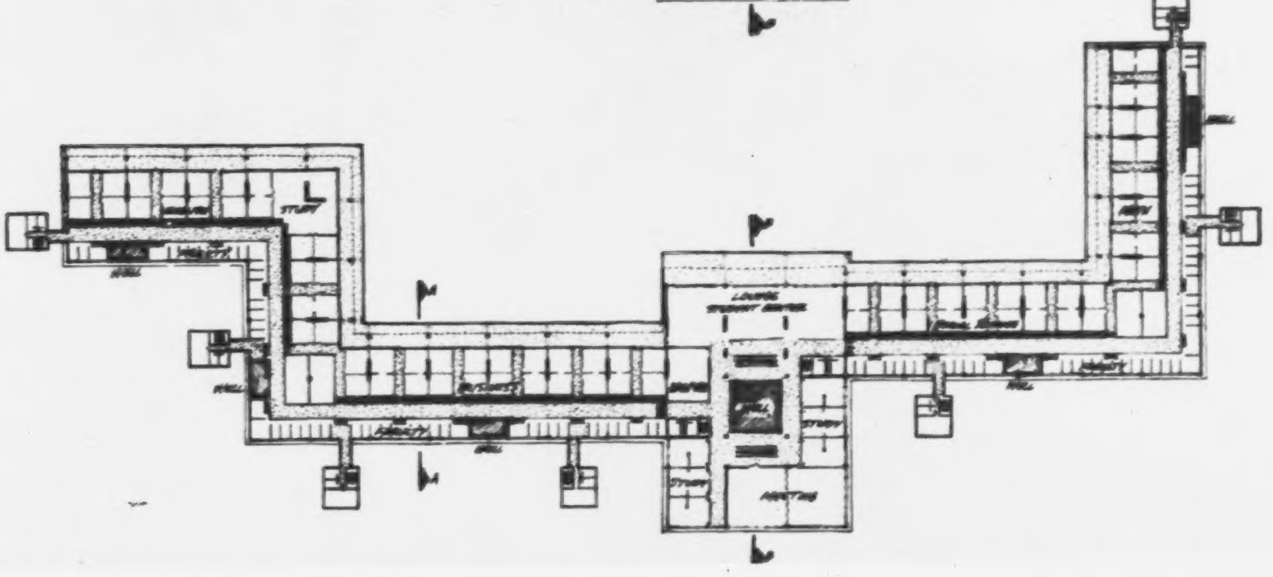
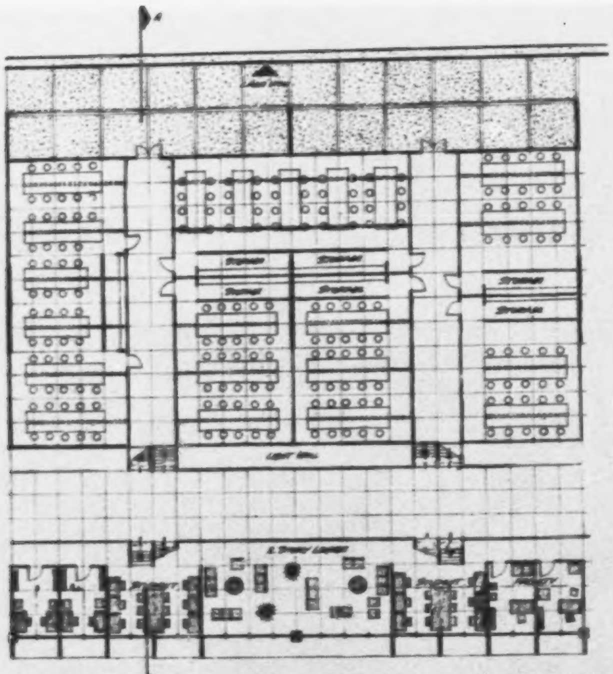
4. Since Mobilia is a commuter's college and no students live on campus, many lounges and locker spaces are provided

Laboratory level

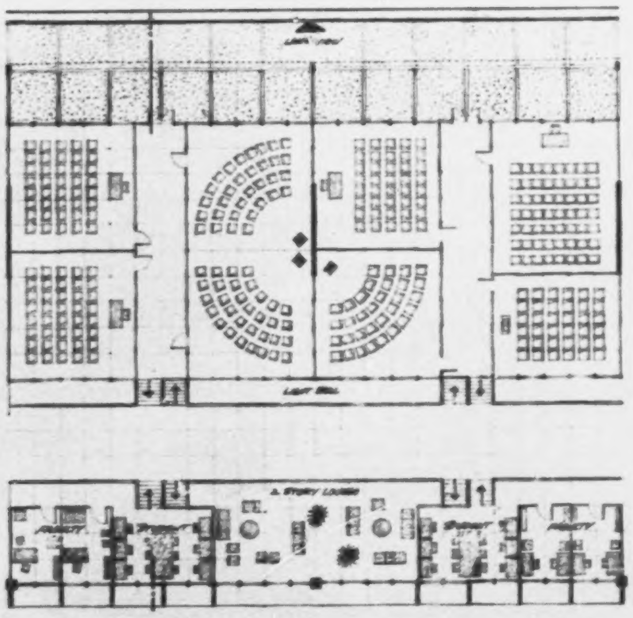




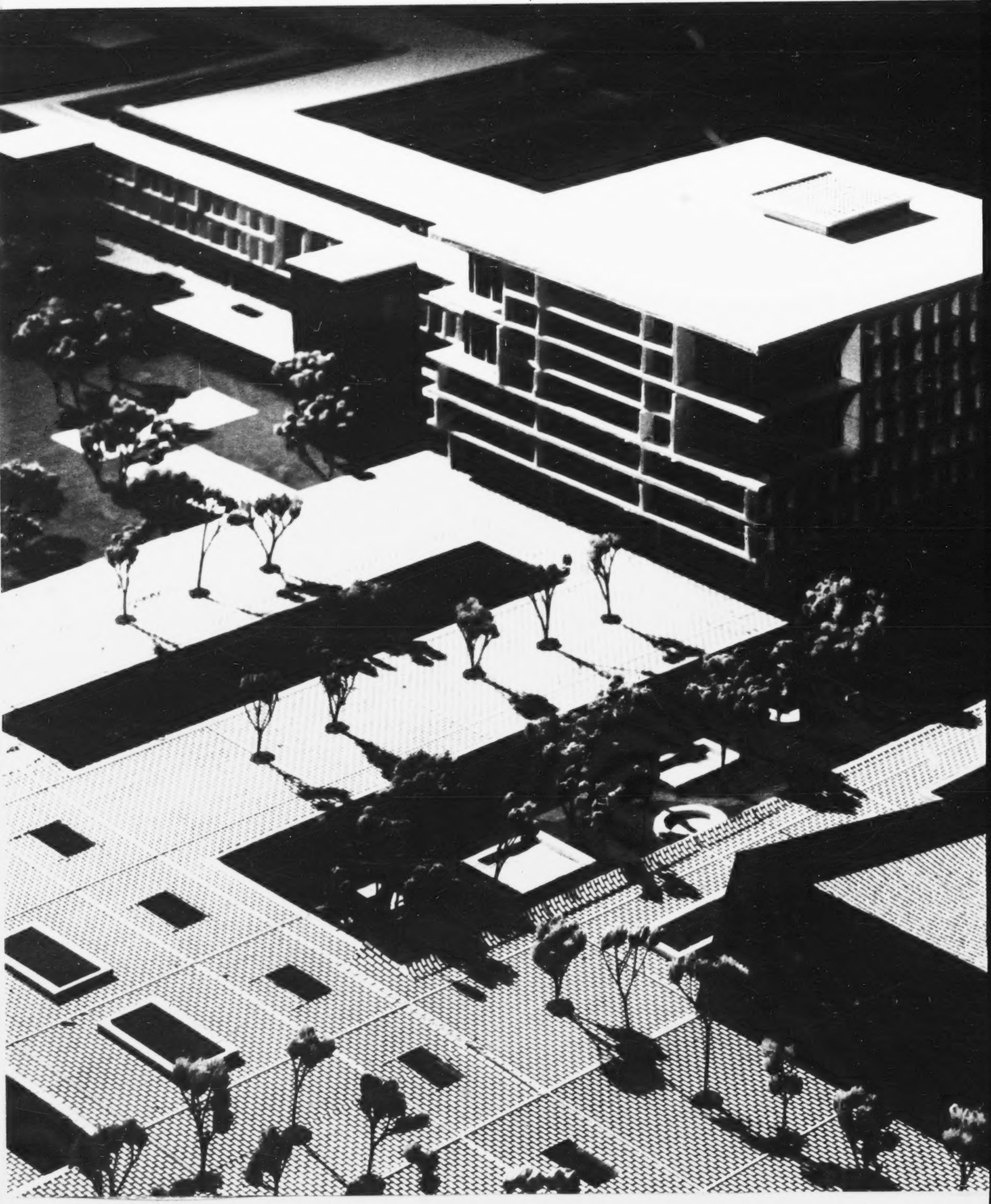
Classroom level

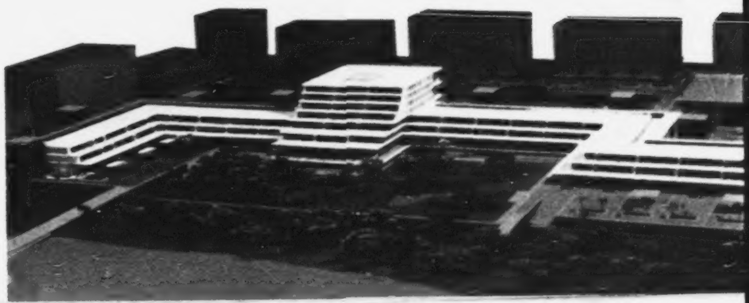


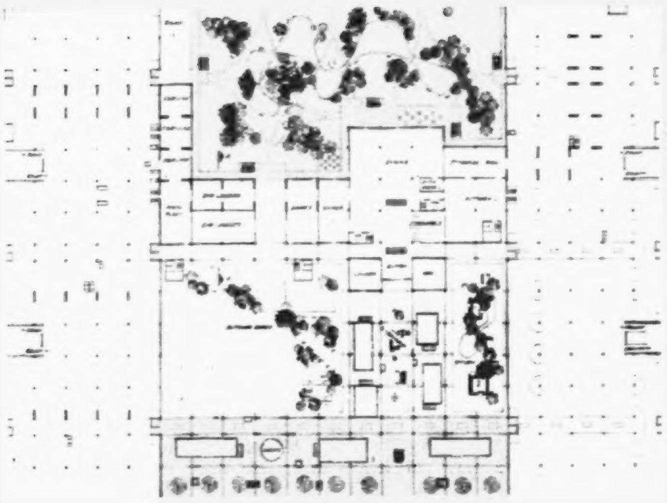
Floor plan — typical laboratories



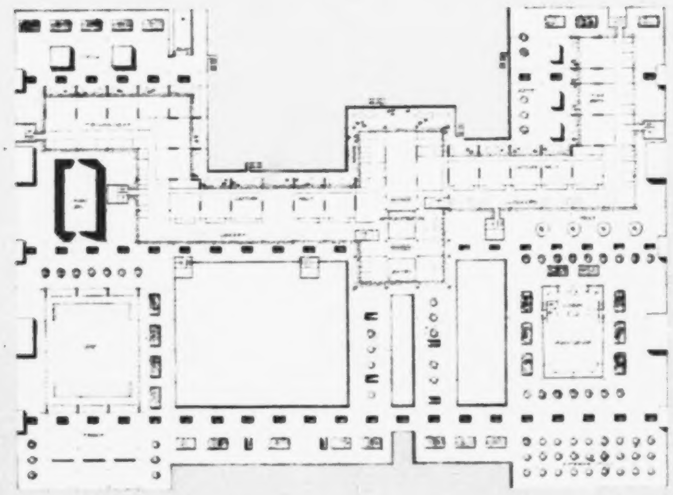
Floor plan — typical classrooms



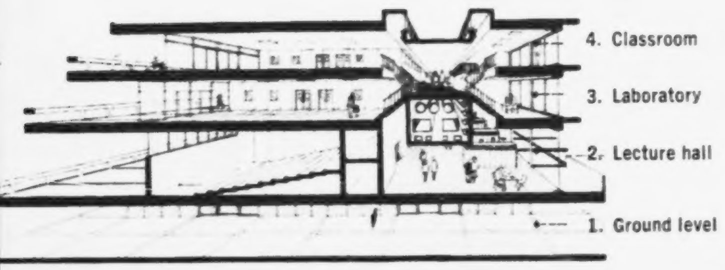




Floor plan — ground level



Floor plan — second level



Typical section through wing showing:

throughout the campus. This enhances the inter-student and student-teacher contact.

5. The gymnasium, field house and play fields are designed for use by a more mature student body. There is little inter-school competition in sports.

The library, which begins on the fifth level and continues for four floors, is the real center of the campus. The open stack library arrangement is controlled by the librarian from a control point on the fifth floor. All access comes from below. The library has individual study carrels with electronic equipment, two-story reading rooms on the corners of the buildings, and decks on each level where students may study overlooking the lake.

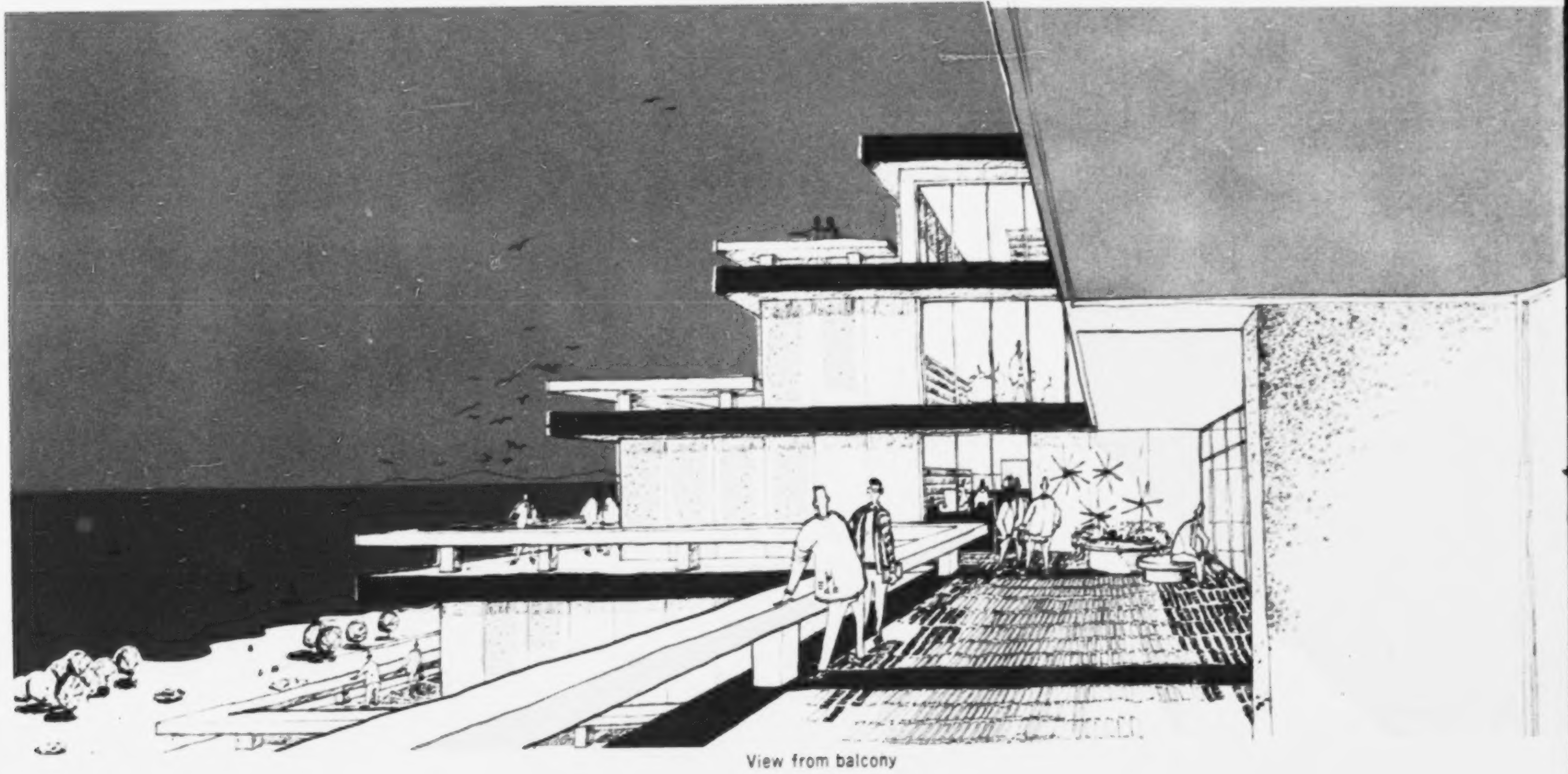
The various instructional areas are grouped together horizontally for flexibility and are connected by a split-level corridor. In general, the first level is the lecture level; the second, the laboratory and specialized classroom level; and the third, non-specialized classroom level. Faculty offices, seminar rooms, and individual study areas for students are directly opposite the instructional areas, off the split-level corridor. The corridor arrangement makes it possible to bring natural light to interior classrooms.

The central levels of the building are used by all students. The student center is just under the library, and it has direct access to the main instructional corridor.

The food center is on the ground level where students dine facing the garden, the park, and the lake. Terraces outside the dining and snack areas permit outdoor dining. The scramble system feeding line is used to speed up service. The kitchen is a central kitchen. Food carts and cold compartments carry food to any point on the campus.

Both students and the public have easy access to the administration center on the plaza level. Here the administration has easy control of the entire campus.

All fixed elements – stairs, elevators, toilets, mechanical shafts – are placed in towers so that the instructional areas may remain flexible and interchangeable. The mechanical ducts run in the suspended ceiling. A closed panel carries TV productions from the large lecture halls to any instructional area through coaxial cable which is provided in the major mechanical utility areas. A basic 5′ x 5′ module is used throughout the building. A modular combination lighting and air fixture also uses the electrical, mechanical wiring and piping that is in the ceiling. Interior partitions are moveable and have a 40-decibel sound rating, except the music areas and large lecture halls, the walls of which are permanent to meet higher acoustical requirements. The entire building is air conditioned. The exteriors of the ground-floor base and the towers are brick. The other exterior walls are pre-



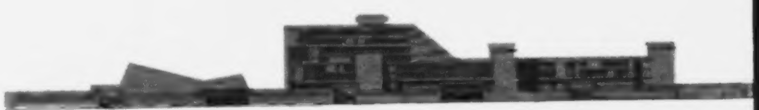
View from balcony

cast concrete panels with aggregate facing. All glass is a warm gray, heat and glare-reducing glass and framed in dark anodized aluminum. The deck surface is exposed aggregate concrete panels.

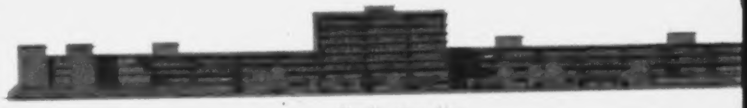
The structure is a 60′ x 60′ bay system. It is a waffle type, post-tensioned slab, 30 inches thick, and poured in place. The bay works well for the parking area and for a variety of flexible instructional spaces.

The instructional area totals 425,250 sq. ft., well over half the total college area, excluding 835,000 sq. ft. of parking; the library totals 124,800 sq. ft.; parking decks, 1,116,000 sq. ft. Cost is estimated at $22,580,000 (of which $5,580,000 is for parking). Per student cost is estimated at $2,262.00

The architect visualizes building-by-building growth. During the first stage, buildings having civic association will be built to bring the community to the college. The architect has planned a bustling atmosphere rather than a college on a grand scale.



East elevation

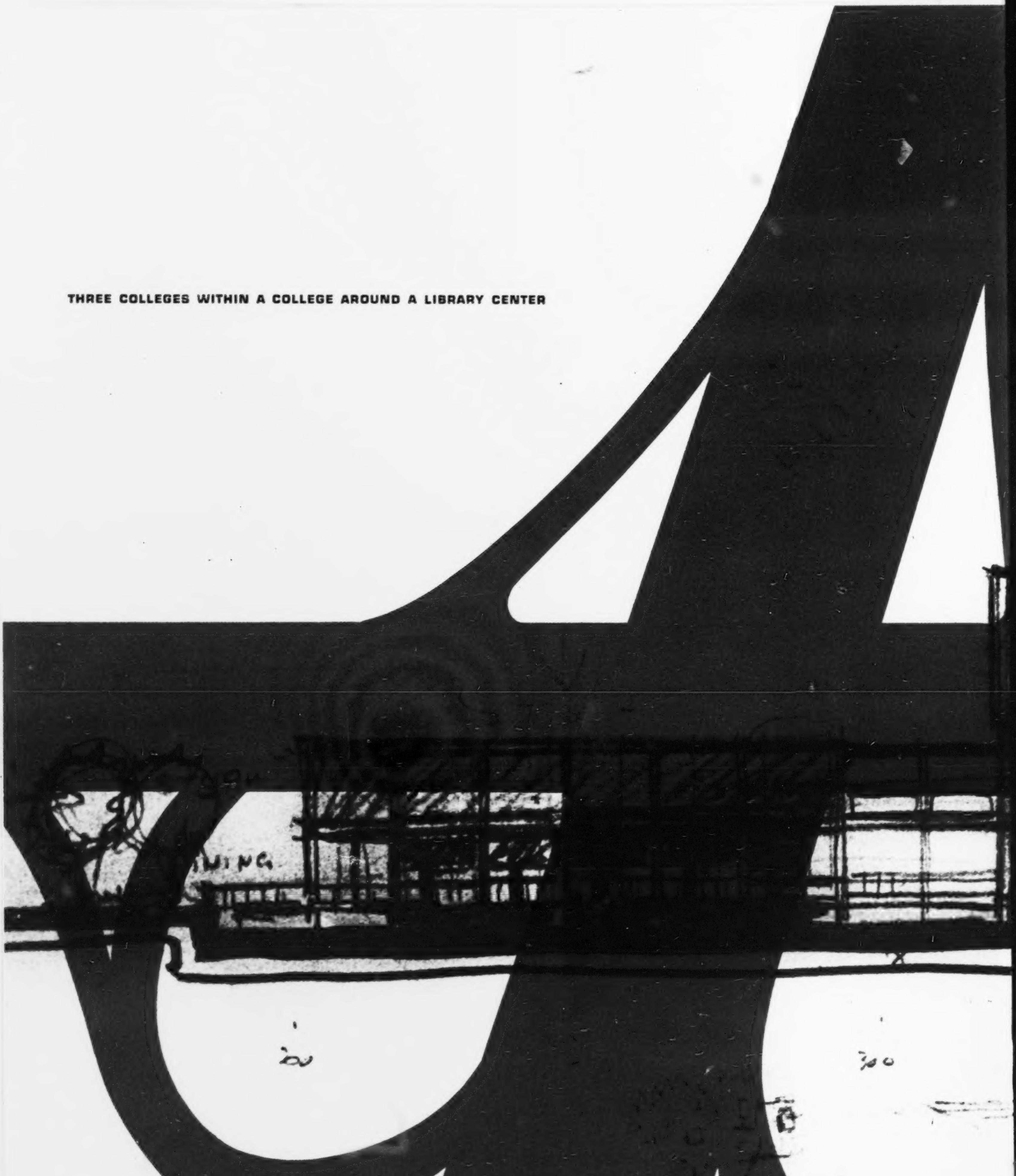


North elevation

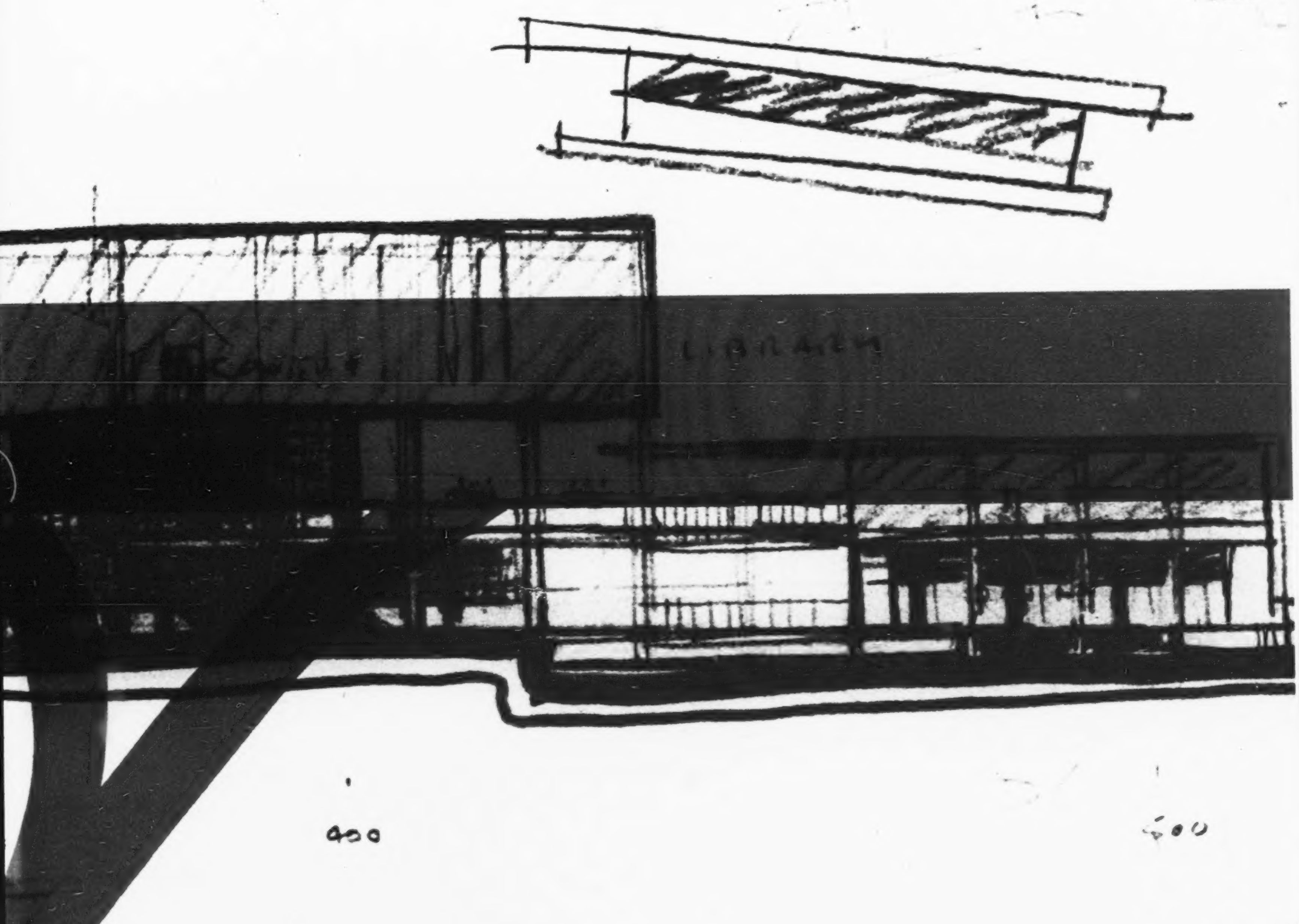
ARCHITECT: GYO OBATA

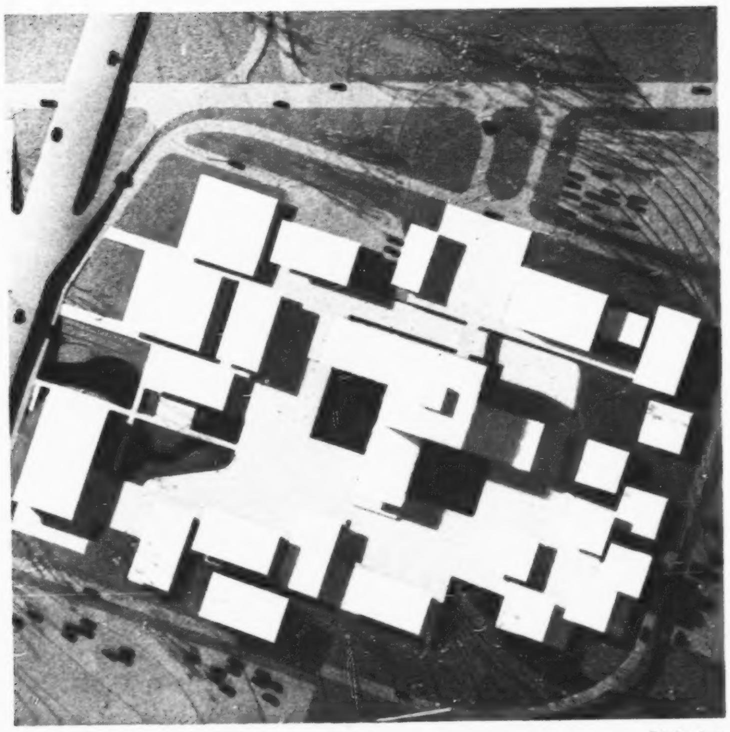
Gyo Obata is the partner in charge of design for Hellmuth, Obata and Kassabaum, Inc., St. Louis, Missouri. Mr. Obata brought one of his designers, Jim Henrekin, with him to the conference, and they were an efficient team with a highly organized approach. His firm has become well known for their campus master plans and dormitories. They have even done such other unusual projects as a penitentiary and a planetarium. Mr. Obata was educated at the University of California and Washington University in St. Louis and received his Master of Architecture in Urban Design from Cranbrook Academy of Art.

THREE COLLEGES WITHIN A COLLEGE AROUND A LIBRARY CENTER

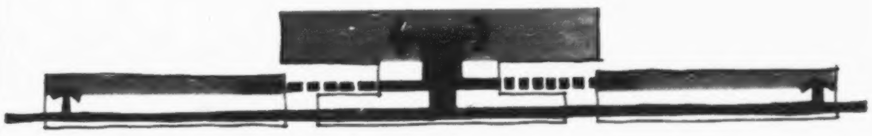


Jeffersonia


LIBRARY
400
600



Plot plan

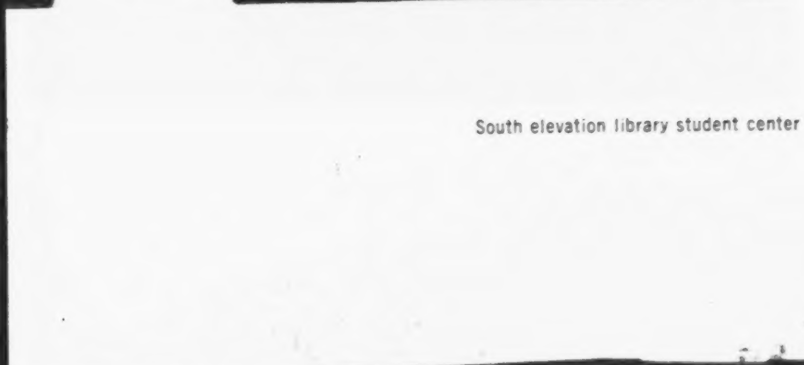


Schematic section vertical circulation

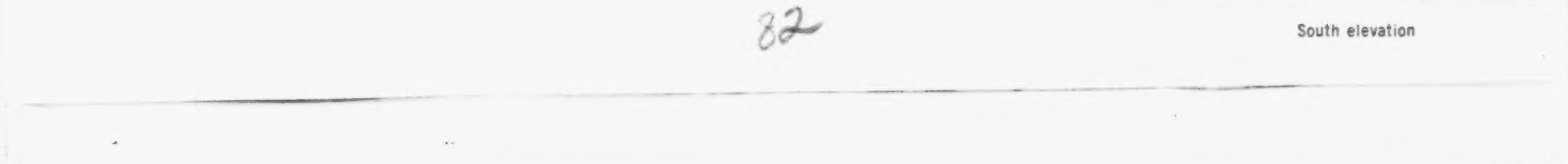
Jeffersonia lies within twelve miles of the District of Columbia in the northern section of a wealthy suburban county. The population of 32,000 represents a five-fold increase in ten years. There is a rapid turnover; however, the surrounding rural population is stable. There is increasing activity in and around Jeffersonia in the fields of nuclear energy, health research, and research development, because of the proximity to government installations. Public transportation is generally poor, but an extensive system of freeways is being constructed to serve the area. One freeway cuts an edge of the campus.

Jeffersonia Community College is the second community college within the county. More colleges are to be built in the future. The attendance area will probably be within a 20-mile radius.

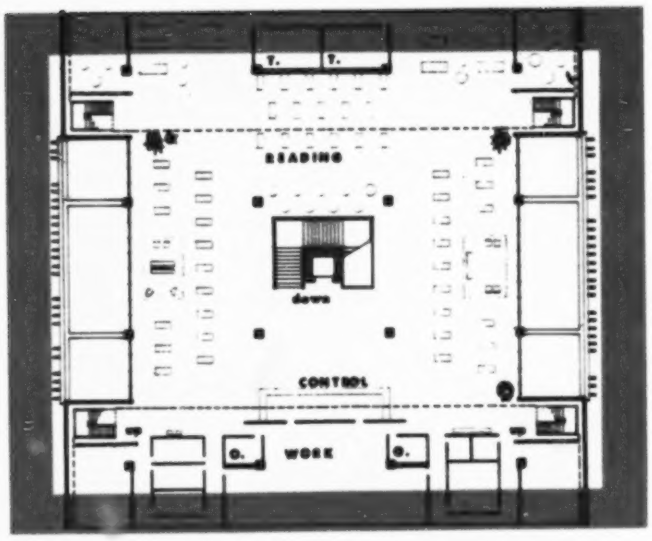
An initial enrollment of about 2,000 is expected, but within eight years the master plan envisions 4,000 full time students, not including 3,000 anticipated adult, non-credit students in evening classes. Forty-four per cent of the students will enroll in lower-division transfer curricula, 36 per cent in terminal-technical and semi-professional curricula, and the balance in adult education programs. Full time students comprise 70 per cent of the enrollment. About half the student body will be employed, about one third will work a forty-hour week.



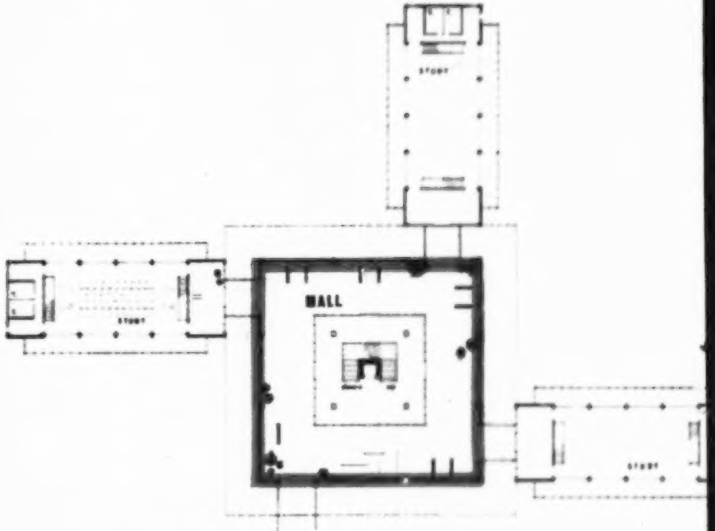
South elevation library student center



South elevation



Floor plan — library, 3rd level

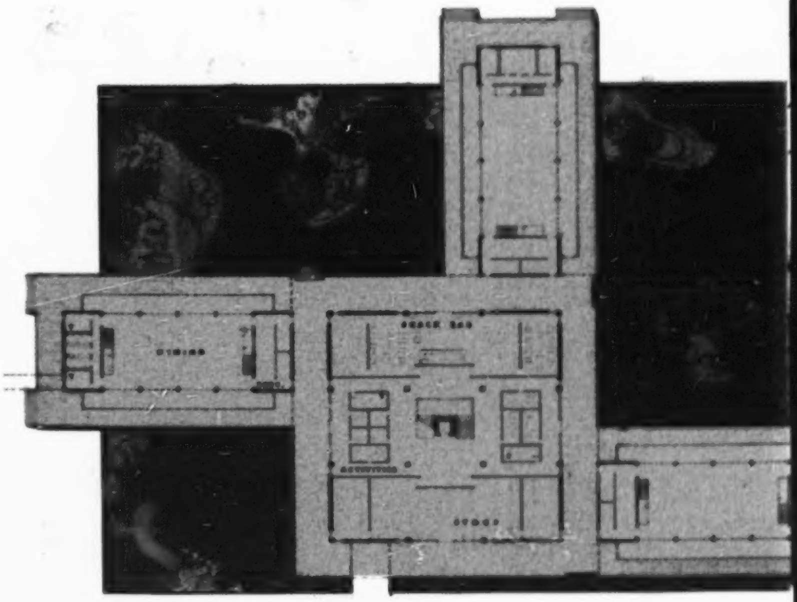


Floor plan — mall study, 2nd level

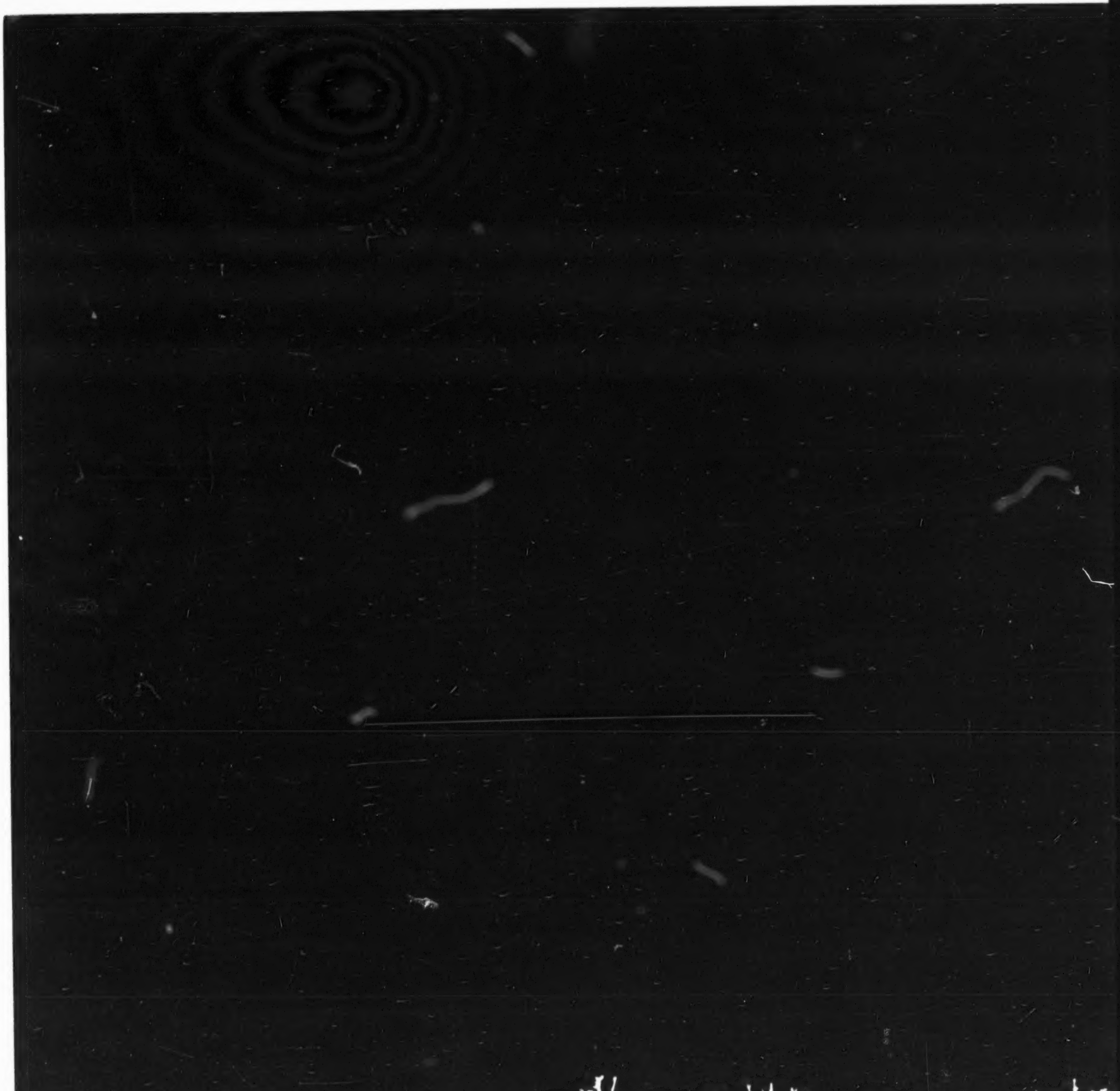
SOLUTION : In a college in which the majority of students commute and remain on campus for only a few hours each day, the campus experience must be an intense one. These transient students can not afford the luxury of prolonged exposure to their surroundings as full time university students can. For this reason the architect of Jeffersonia Community College attempted to establish, by the arrangement of buildings and spaces, an intimate environment which is human in scale, while solving the obvious functional requirements of the facilities. There are no large, over-powering vistas or grand halls. The students dine, study, and socialize in small groups. Every attempt was made to scale the surroundings and activities to the individual.

The theme of the college is the library building. It is located at the center of the site and functions as the hub of the educational and social activities of the entire campus. This multi-story building rises above a lake created by damming the small stream which runs across the site. The reflections of this building in the lake provide inviting vistas for the approaching students, and the height makes the building easily distinguishable from the highway and provides a landmark for arriving students and drivers passing by.

The library building serves as a repository of knowledge and students. The library proper is at the top level.



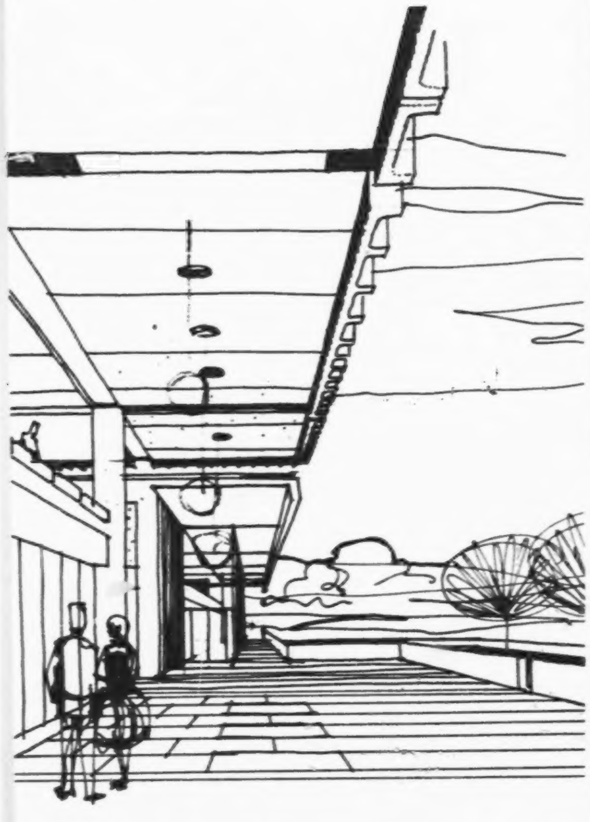
Floor plan — activity dining, ground level



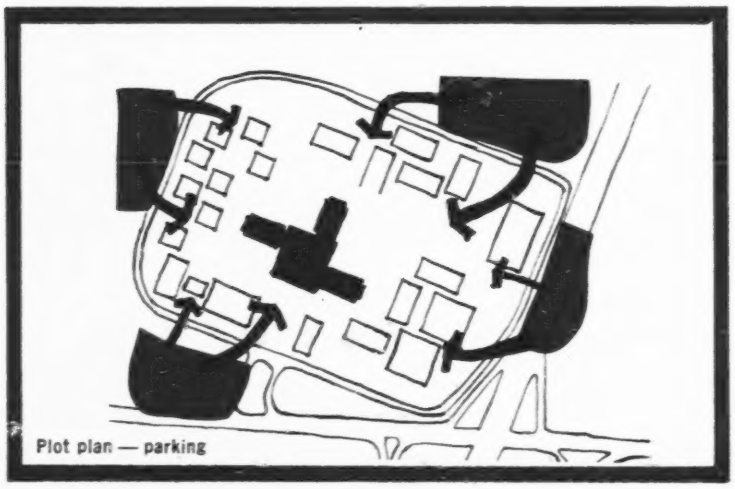
It is free-standing on stilts to enhance its dominant height. A central elevator enables one librarian to control the library during slack periods. Three study-area wings are attached in a pinwheel arrangement at the level of the mall.

The open-air circulation mall is the middle level of the library building. From this mall the student may either go up to the library or down to the dining areas and student center. The dining areas on the lower floor are level with the surrounding man-made lake. The three dining halls share this pleasant view. Each hall serves many varied functions. Students eat, study, and relax here in small groups much the same as in the eating clubs in eastern colleges.

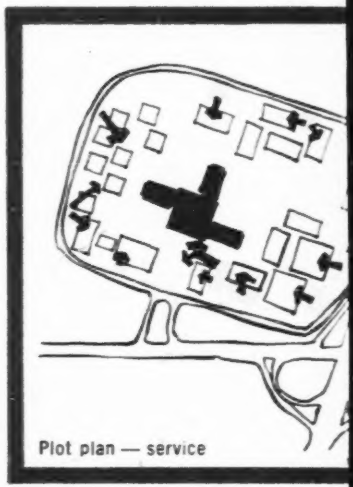
Four colleges reflect the four-part division of the college curriculum: science, commerce, communications and technology, with technology having the largest enrollment. The classrooms for each are located in groups encircling the library center. The classrooms are in clusters with central service cores at the center of each cluster. These classroom pods can be added to the outer ring as



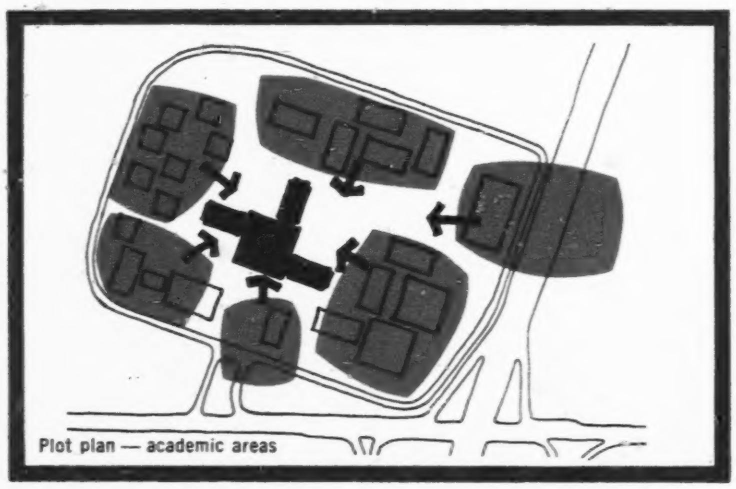
View plaza level under library



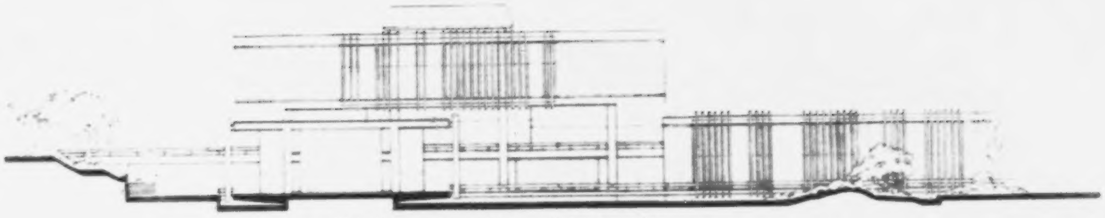
Plot plan — parking



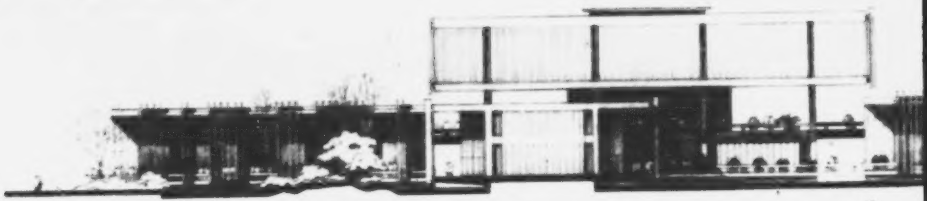
Plot plan — service



Plot plan — academic areas



South elevation library student center



West elevation library student center

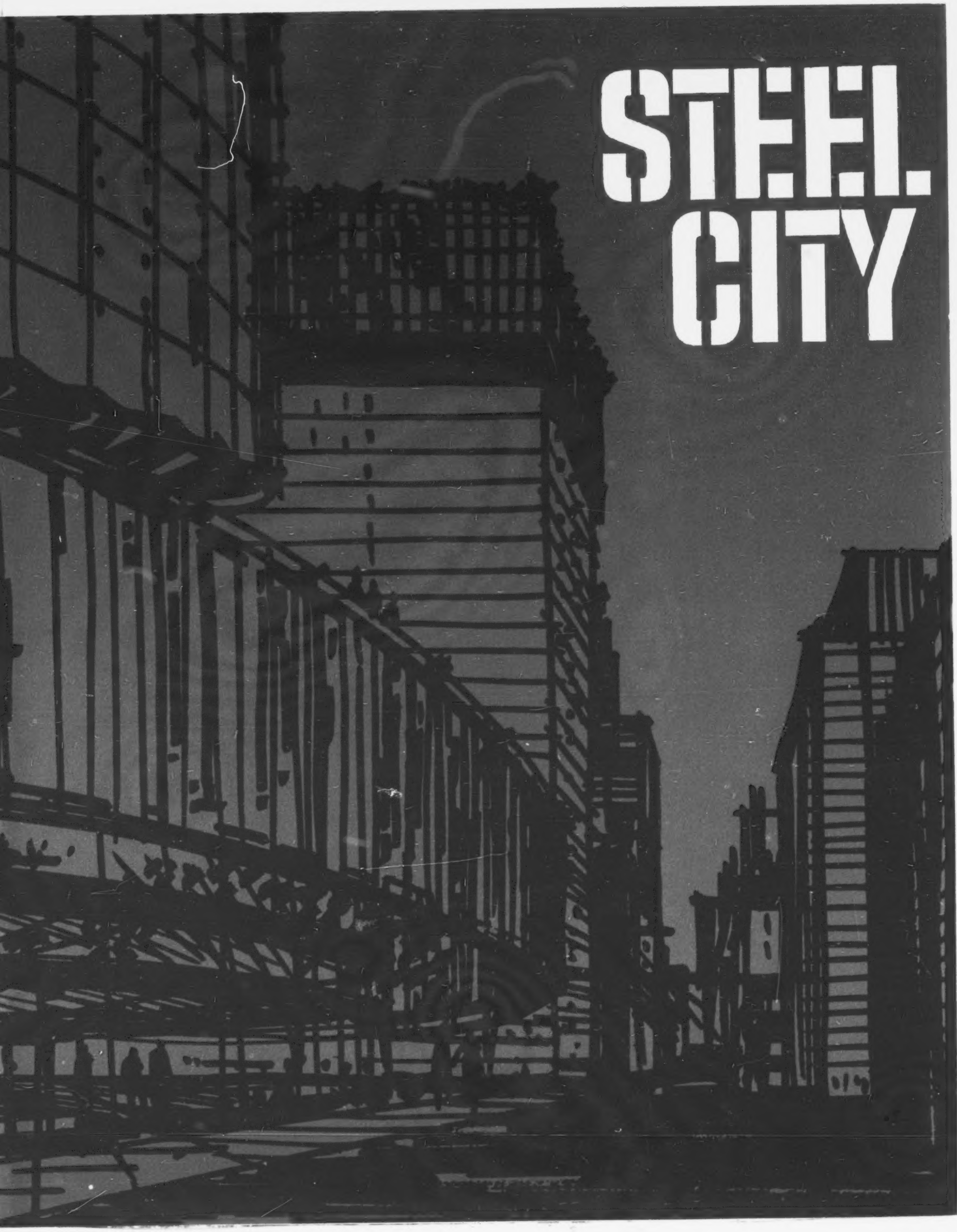
they are needed. The campus is planned for two-stage growth in peripheral fashion to keep the campus from appearing to be constantly under construction.

Surrounding the library-center-complex of buildings is a loop road which leads from the freeway to the campus. Coming off the freeway one drives past the mall and the highrising library onto a perimeter road. Students may park their cars at any point along this road in the various parking lots and use the college bus service. This arrangement effectively separates vehicular and pedestrian traffic. The segment of land cut off from the major part of the campus by the freeway is used for athletic fields. Additional use was made of the elevated freeway structure by constructing a storm and fallout shelter under the existing concrete freeway structure.

The architecture and curriculum of Jeffersonia Community College provides an educational community in which the student feels he is an important, individual member. It is hoped the student will retain the atmosphere and association after he has left the campus to become a community member in busy Washington, D.C.

ARCHITECT: JAMES H. FINCH

Bill Finch matched a southern drawl and procrastination with a wry wit to create a community college in a hectic 10 days. Mr. Finch and his team analyzed, theorized, and finally realized a fine solution for their community college. A partner in the Atlanta, Georgia, firm of Finch, Alexander, Barnes, Rothschild and Paschal, he teaches at Georgia Tech, his Alma Mater. He also attended Princeton University. He has not confined his honors to architecture, but has walked off with journalistic and military honors as well. His architectural work encompasses both commercial and educational projects.


STEEL
CITY

Section I

A person in a small interior room has no place to look. So it is in an industrial city. There is no place to go to escape the smells, tall buildings, pigeons, cars, noise, and dirt. A 2 block site in such a city is the location of Steel City Community College.

Out of the fog and dirt Steel City hopes to grow a flower, to create something set apart, as an educational and cultural center for its citizens.

Steel City Community College is to be the beautiful flower that grows in the crevice of the city's concrete canyons — elegant in stature, inviting in nature, stimulating in character — a stepping stone to higher education from high school, a haven for rejected or deserter students, an impetus for businessmen, a training and practice field for future technicians — truly a functional spoke of the educational wheel. It is to serve as the academic and cultural center of the urban area.

Steel City is a large, northern, industrial city, with population characteristics similar to those of Chicago or Detroit. It has extensive heavy industry, good public transportation, a broad range of socioeconomic levels, and readily identifiable clusters of racial and ethnic gr

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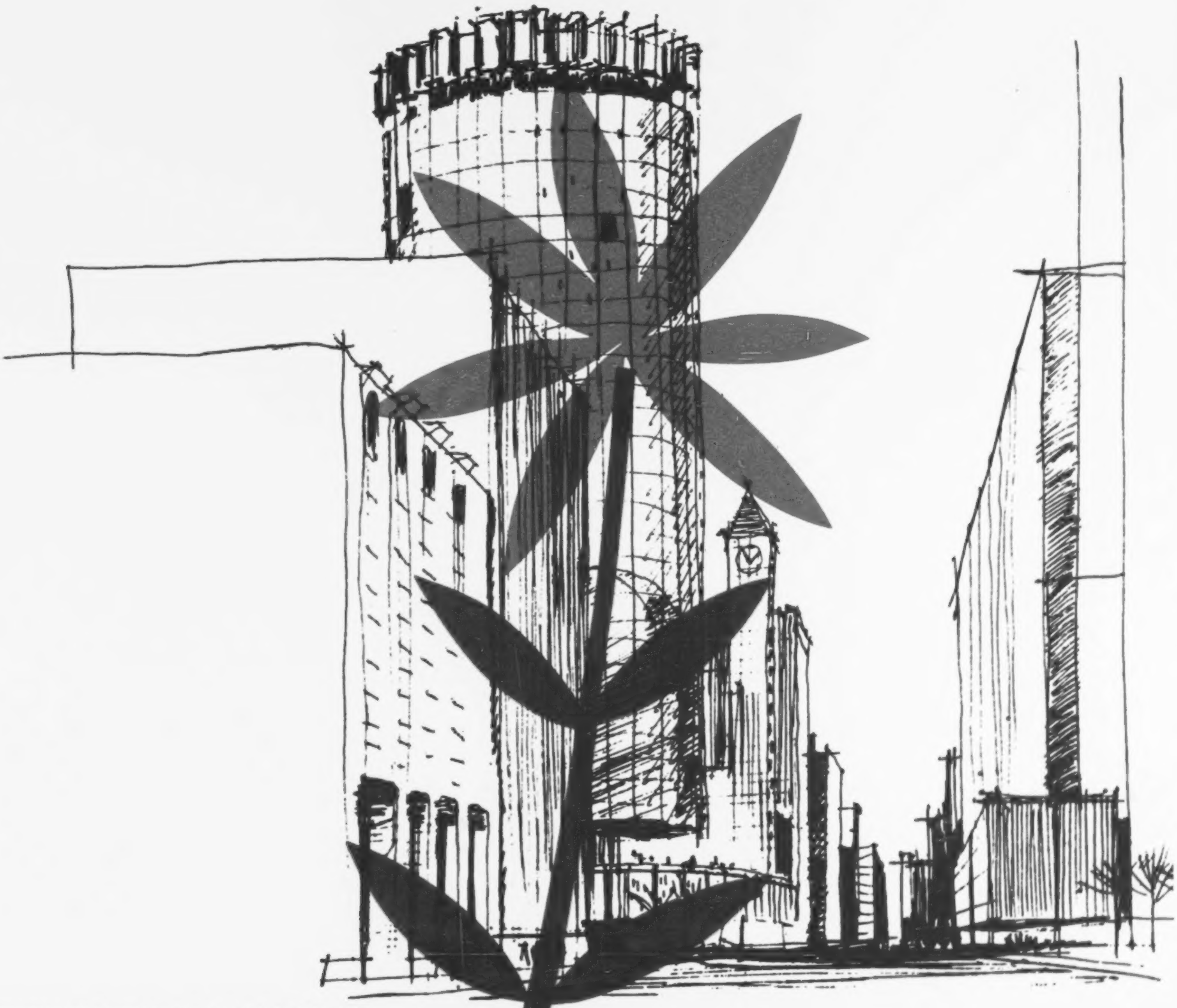

A SKYSCRAPER COLLEGE ON A 3 ACRE SITE.

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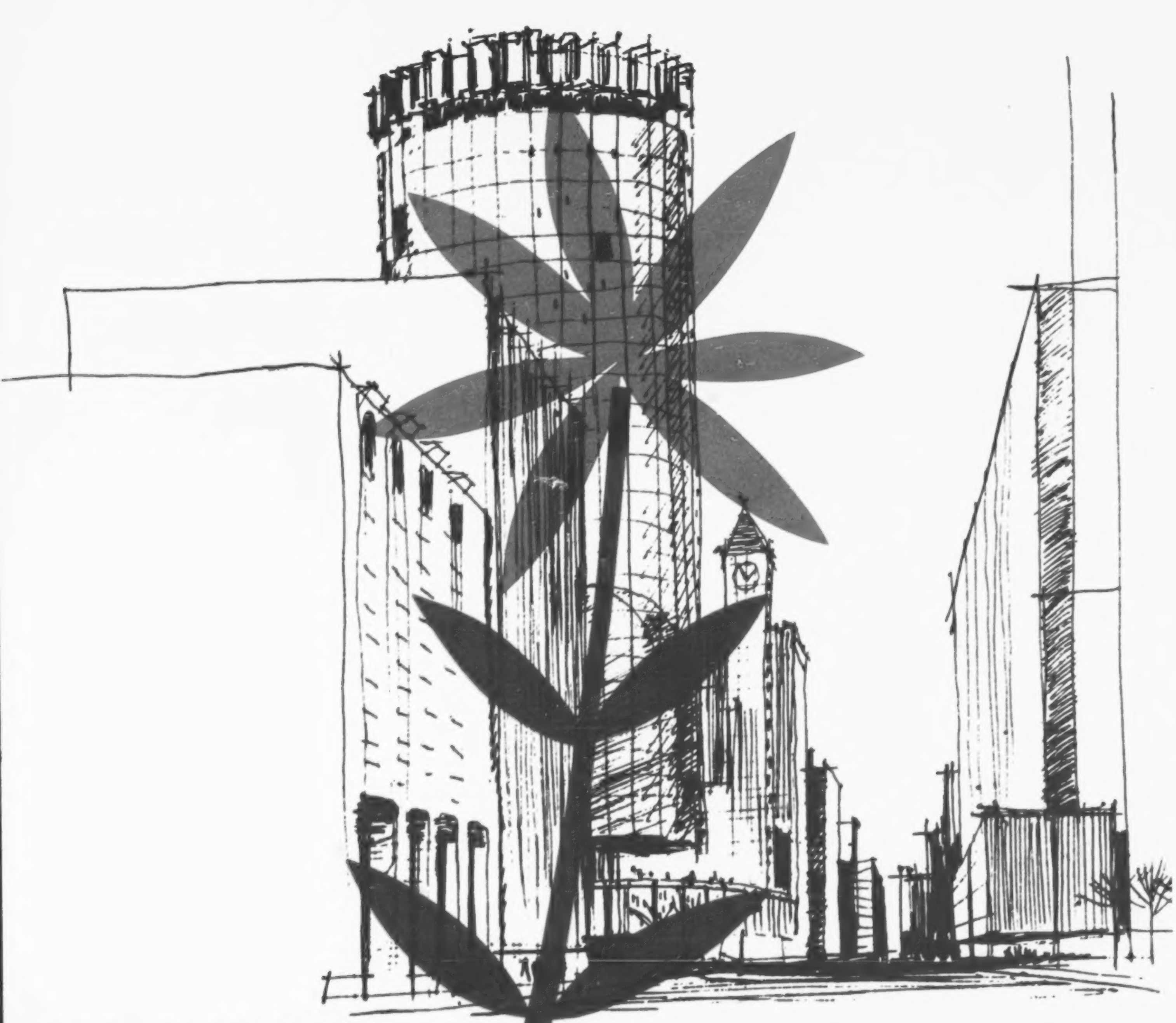
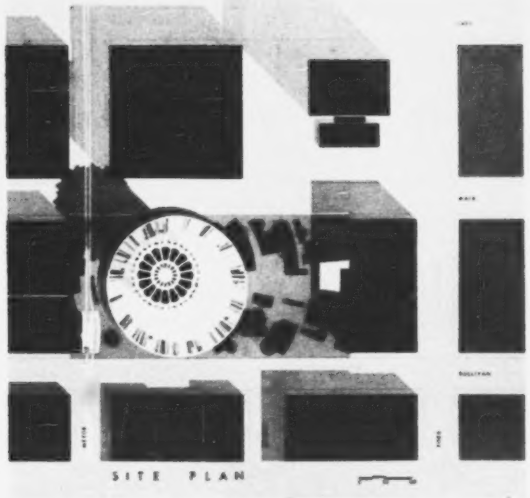
Steel City is a large, northern, industrial city, with population characteristics similar to those of Chicago or Detroit. It has extensive heavy industry, good public transportation, a broad range of socioeconomic levels, and readily identifiable clusters of racial and ethnic groups. The city's population, although fairly stable, is beginning to decline slightly, with resultant growth in the metropolitan area surrounding the city limits. Deterioration and blight in the heart of the city have resulted in urban renewal and redevelopment efforts in recent years, and the college site is the first major step in this program.

The school is to be a strong statement, but not necessarily imposing. The buildings are to be inviting and yet provide a degree of privacy — convivial, but not frivolous; dignified, but not institutional.

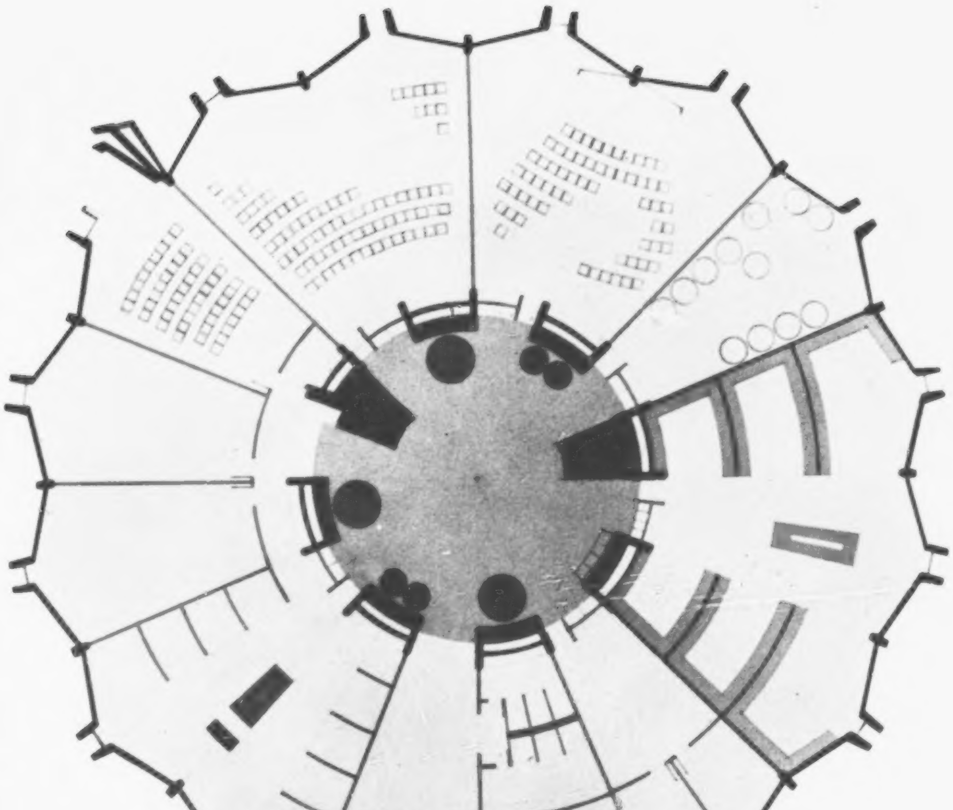


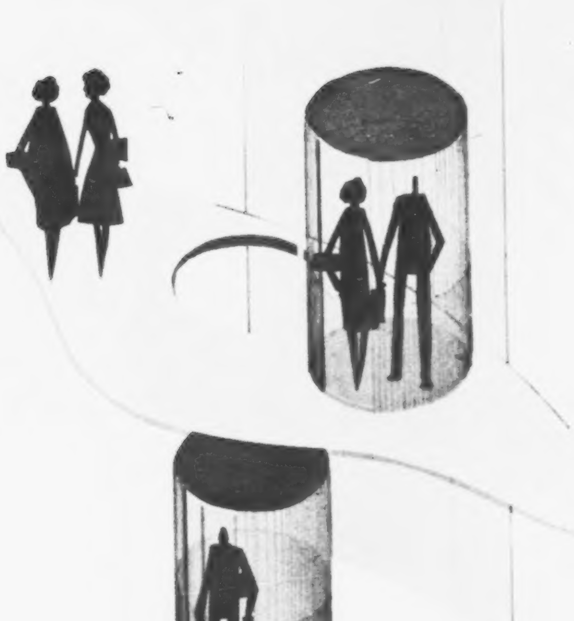
YSCRAPER COLLEGE ON A 3 ACRE SITE.


SITE PLAN

SOLUTION : The opportunity exists in one or two level colleges to directly relate the student to green grass and trees, and to quiet natural spaces. In the vertical college, this opportunity is more remote, and on our site verticality is inevitable. The possibilities that remain to create a friendly atmosphere are simple: create appropriately scaled (intimate) spaces directly related to each floor and possibly connect two or three levels of lounges that occur within a circular department, thereby attaining some manner of social contact. Interdepartmental contact could take place in these same interconnected lounges, in the roof terrace-coke rooms, in the meeting rooms on the administration or library level, or in the multi-level dining platforms. Vertical clustering and zoning of the related activities will provide close interaction between all qualities of students and faculty.

The college will be built for approximately 4,000 students (two-thirds of whom will be part time students), and no additional construction will occur, thereby forcing the development of colleges in other needy areas and creating other nuclei with their own fields of specialization. Night school classes will increase


Typical plan of tower


Studalator

actual capacity to a maximum of six to seven thousand.

In addition to its role as a community college, this institution will be a TV college, enabling it to serve more residents. Programmed instruction will be an important component of the college's teaching methods. Over 2,500 additional credit and non-credit students may be served by the college's TV program.

The specific design of the college seeks to attain three goals.

1. Flexibility in creating a maximum series of convertible spaces within a static structure.
2. Solution of the problems of the classrooms, laboratories, study alcoves, offices, libraries for the present while allowing for future expansion or contraction.
3. Re-analysis of "hardcore" facilities, such as the toilets, utility chases, stairs, and elevators in an attempt to eliminate their restrictions on flexibility.

To attain these goals, a tower scheme evolved. The basic structural concept therefore focuses on a concentration of vertical pedestrian and service circulation to form a central core within this tower. A structural ring of columns c
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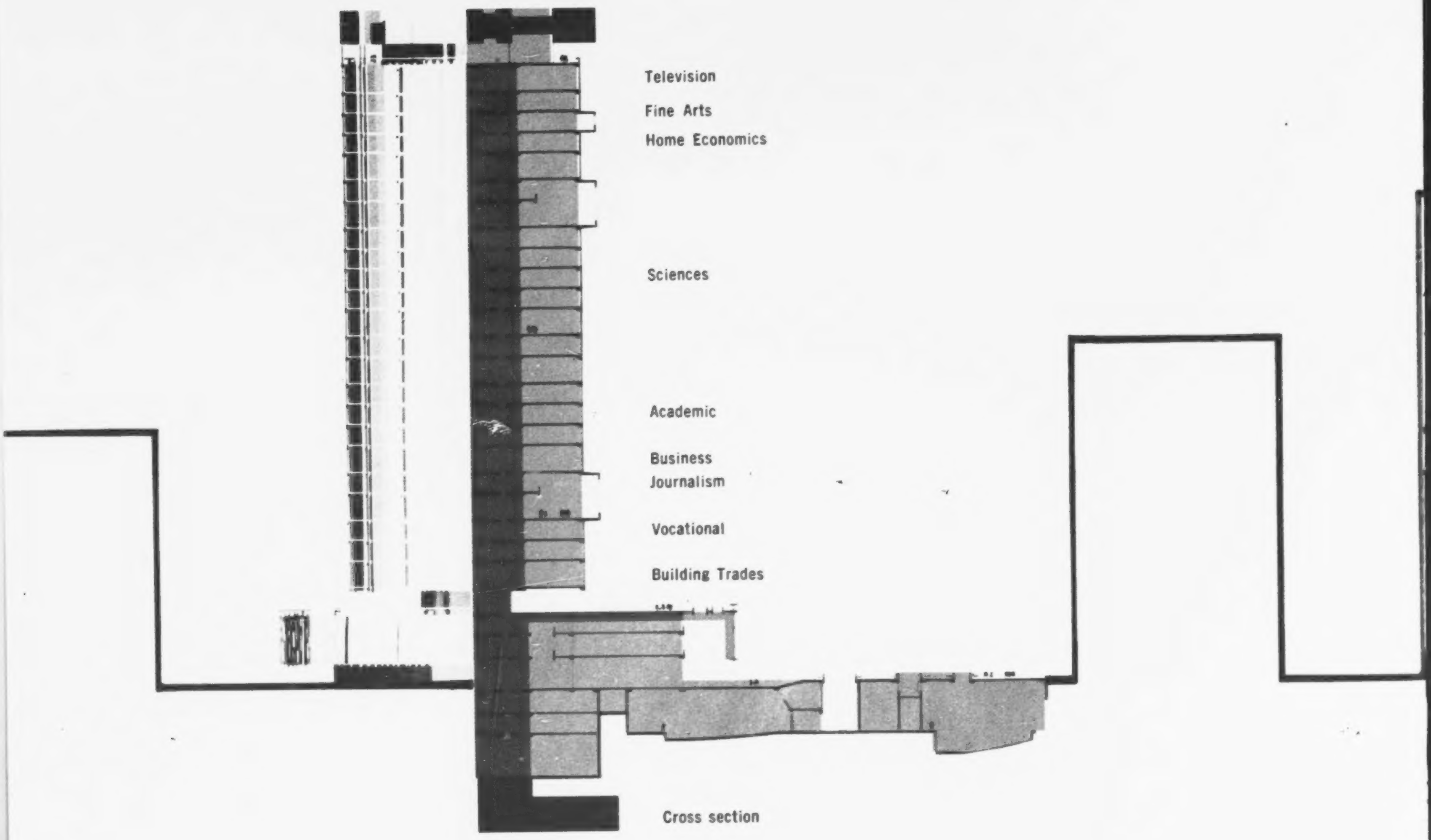

Cross section

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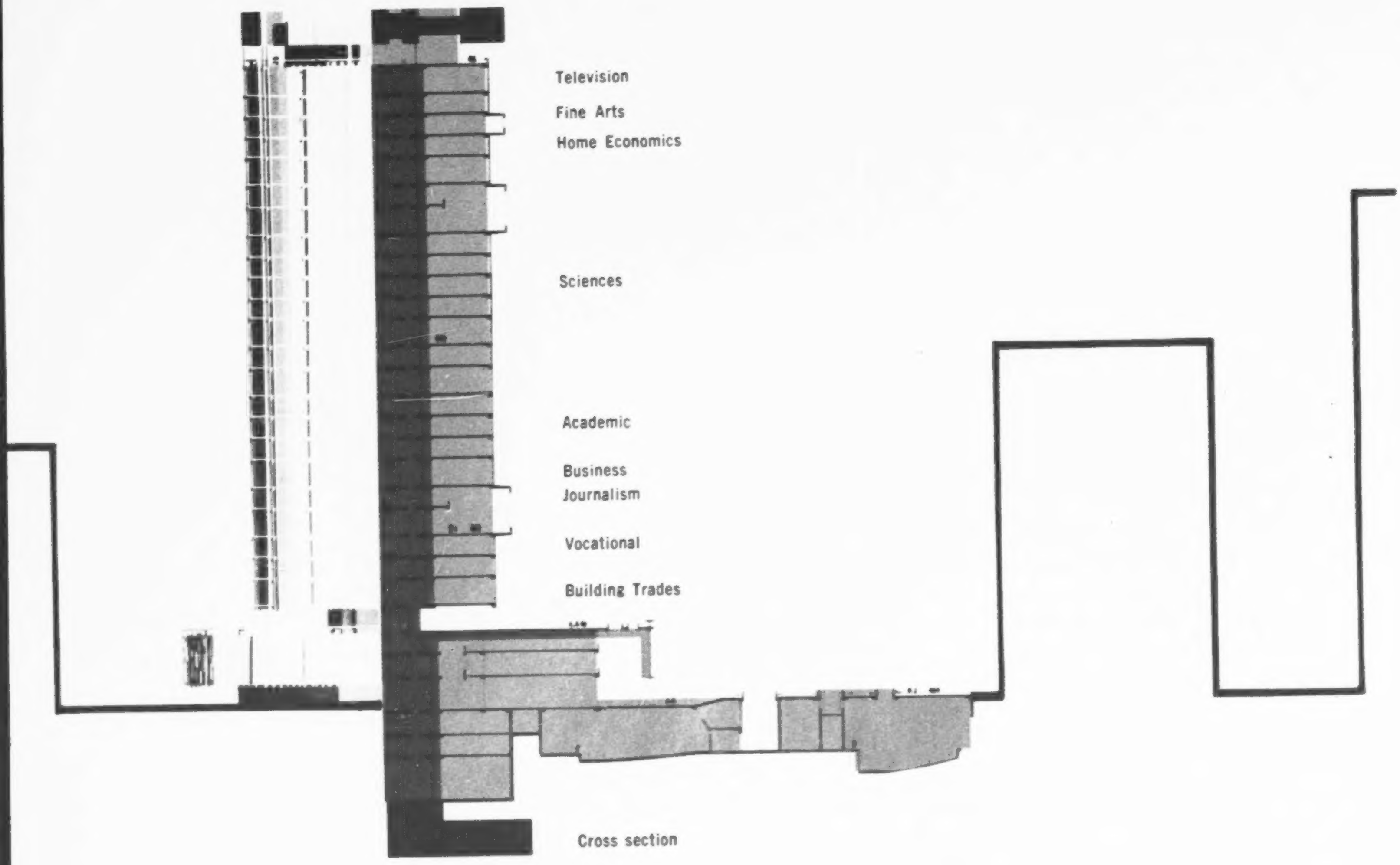
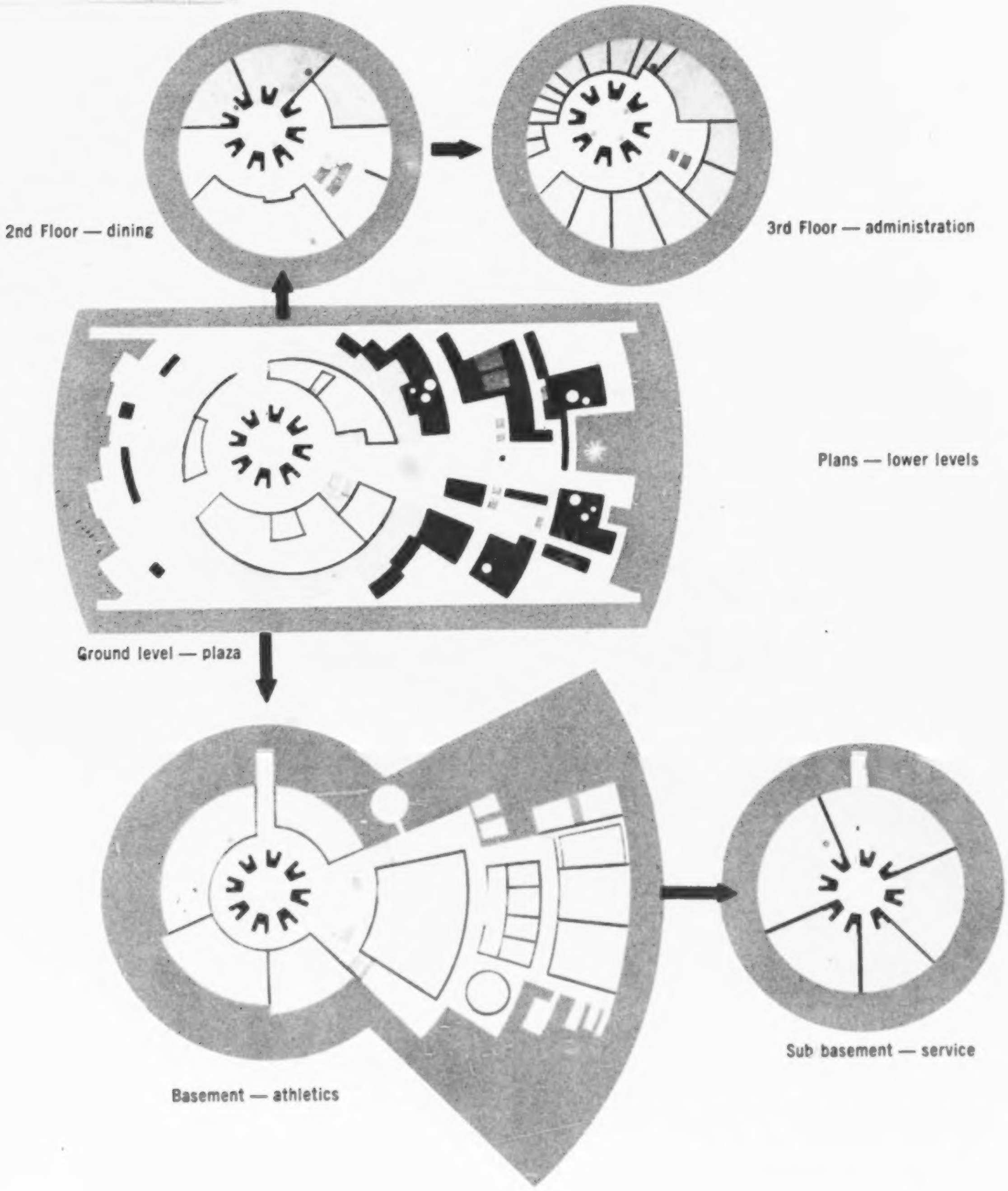
To attain these goals, a tower scheme evolved. The basic structural concept therefore focuses on a concentration of vertical pedestrian and service circulation to form a central core within this tower. A structural ring of columns circumscribes the core, establishing a natural division between circulation (hardcore functions) and flexible academic areas.

The hardcore design elements, including machines, heavy equipment, mechanical systems, athletic facilities (or other noise producing activities) are located at a sub-grade level, as well as the building service, maintenance and garbage facilities. These spaces have been located beneath the plaza level at various integrated positions, all accessible by an under-street pedestrian tunnel. A vehicular



Cross section

Section I



Plans — lower levels

tunnel connects to the lowest level of a revenue-producing structure across the street.

In order to feasibly support the college and park, a rental office and parking structure is constructed on the college-owned half block located to the north of the college tower. The building would consist of ten parking levels (five levels below and five above grade), accommodating approximately 1,000 cars and seventeen floors of lease office space (525,000 sq. ft.). The revenue would tend to support original college construction costs, pay for the school's share of urban renewal, and in the future finance the continuing operational and maintenance expenditures. This would allow for a buffer park area within which the college flower can grow and develop.

The central core commences at the "hardcore," sub-grade level and continues through the plaza, library, and administration areas, where a structural hood is created to shelter these functions. Again the core continues vertically through 24 classroom levels, a student activity (coke and social area), and finally terminates in a flower form at the top which serves as a suspension beam which carries all 25 floors. The sus
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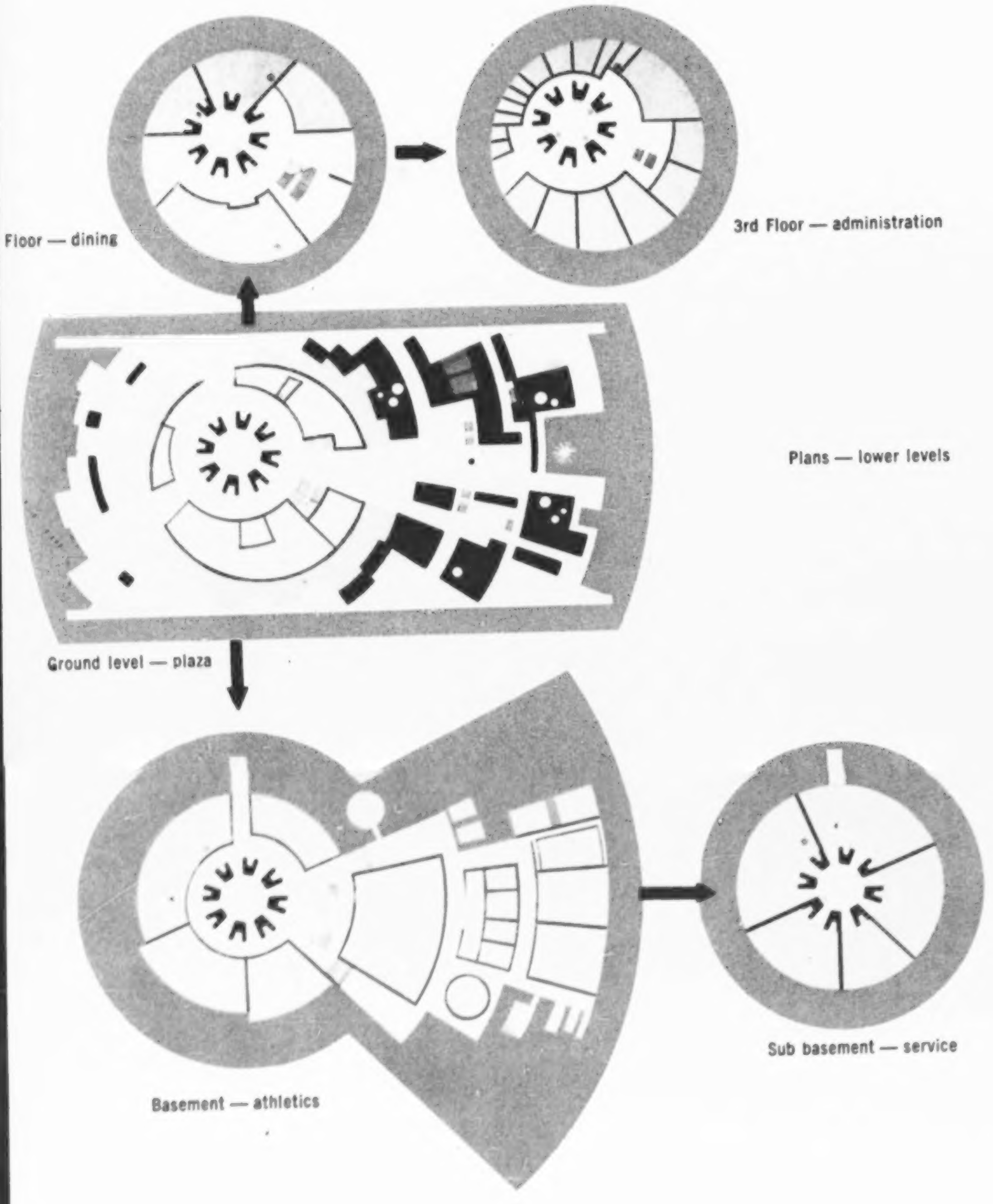

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A conventional elevator system that would serve a normal highrise office building is inadequate for the vertical college. A more flexible or combination elevator system is devised. "Studalators," continuous, vertically moving, clear plastic tubes, can transport two or three students at one time in each compartment from one floor to the next to allow a visual interchange for the students between the various departments within the college complex. The continuous, slow-moving tubes are augmented by fast-moving passenger elevators and service elevators to achieve a complete system of vertical motion.

Horizontal flexibility is achieved by flexible petals or cells that can be grouped around the central core on each floor. To reduce or eliminate the hardcore elements, a mobile carrel was devised. It is a small booth containing a curved desk, a rotating seat, a small closed-circuit TV, and audio-visual aids that can be tuned in to "college central" through IBM and referred to "library central." This isolation booth gives the student a chance to attain real concentration, and it can be moved about easily and plugged in to "service
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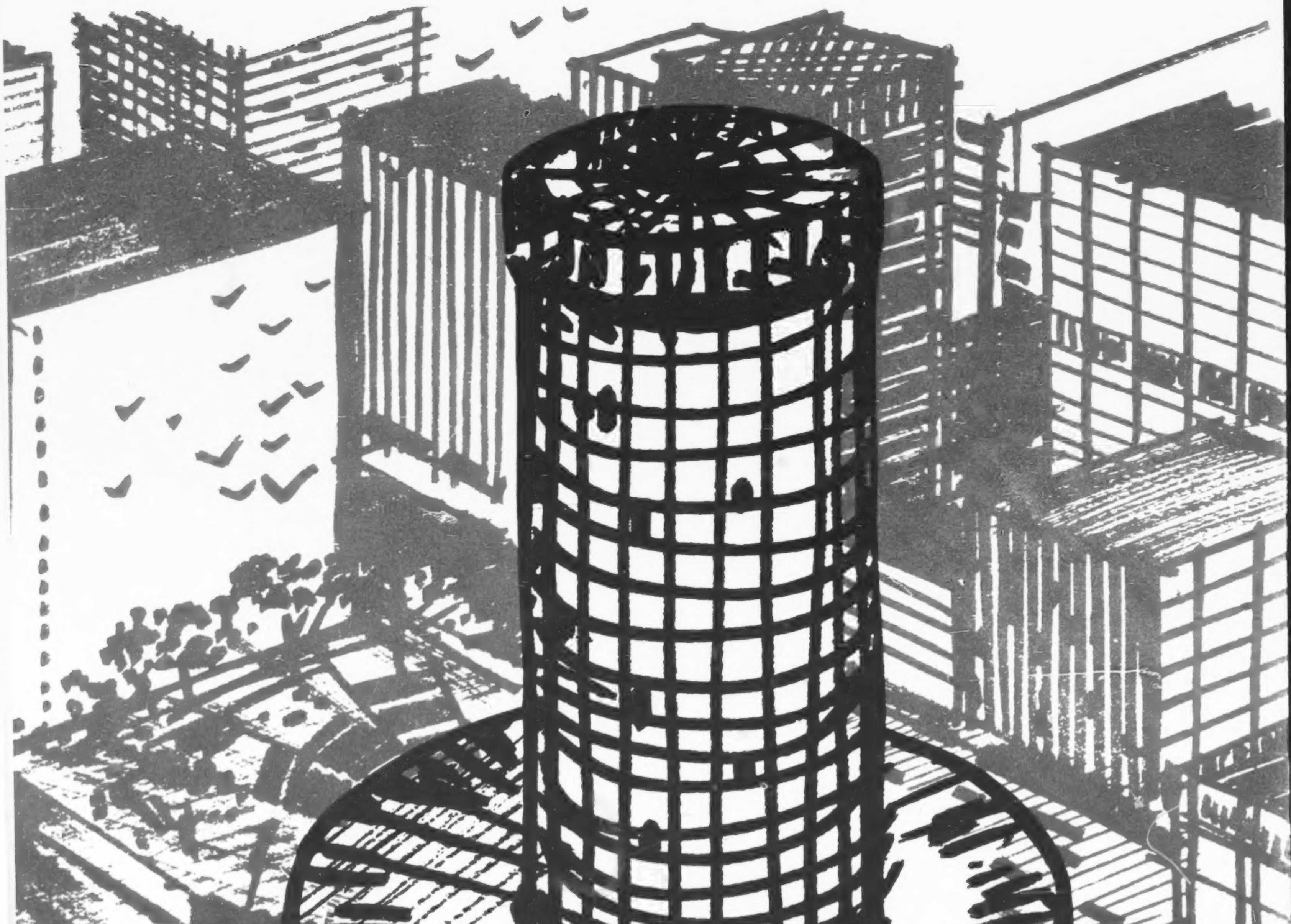

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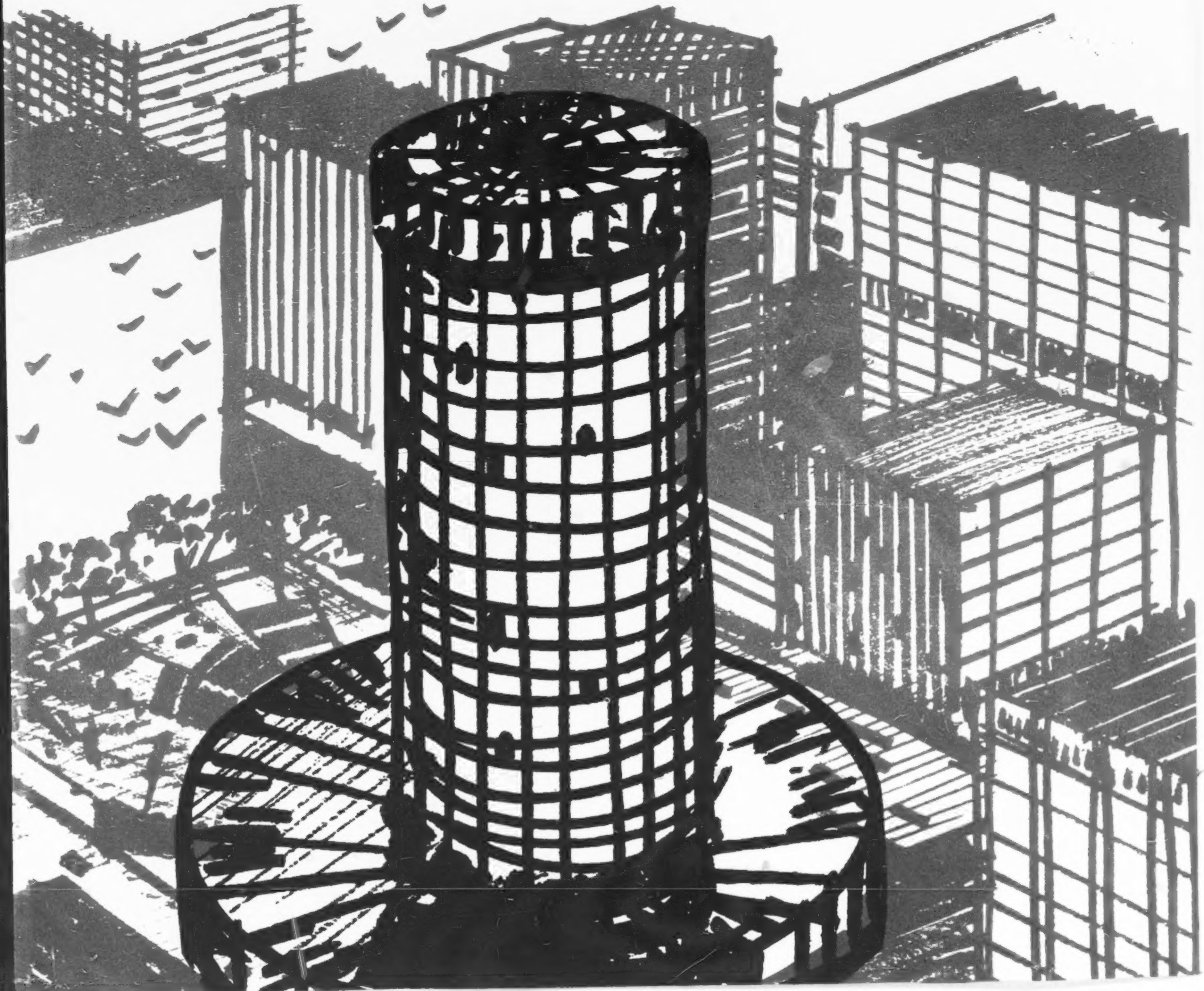
Larger scale horizontal flexibility is achieved by folding or accordion sound partitions that radiate from each column point and form the functional petals, i.e., pie-shaped segments, that comprise the complex of departments. One such segment is scaled to provide a classroom space capable of handling up to 30 stu-



dents; a combination of two spaces handles 66; three petals, 100 students. The various combinations and arrangements are unlimited. The entire floor can be expanded to an open arrangement if necessary.

The community college must be the mainspring of the metropolitan area. One academic tower located on a carpet of soft and pleasant space seems to be correct architectural expression.

ARCHITECT: DAVID A. MCKINLEY, JR.

Dave McKinley through his sense of humor, youthful enthusiasm and rel
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Lawson, Mitchell, McKinley

We gambled that, if given the right conditions, ten talented architects would be able to create exciting and perhaps worthwhile designs in ten days. We believe the gamble was successful. We were pleased and somewhat shocked by the prodigious amount of work produced. If these solutions to our hypothetical community colleges can in some way help the architects, educators and parents, who will be planning our future community colleges, our primary purpose will have been fulfilled.

My sincere thanks to all concerned—to the architects who accepted the colossal amount of work, to the students who worked tirelessly to make the conference a success, to the Educational Facilities Laboratories who allowed us to gamble with their money, to Dr. Edmund Gleazer, to the other consultants for their invaluable participation, and to the fine graphics team who have presented the results so handsomely.

Bill N. Lacy
Director, Rice Design Fete

Caudill, Gleazer, Shaw, King

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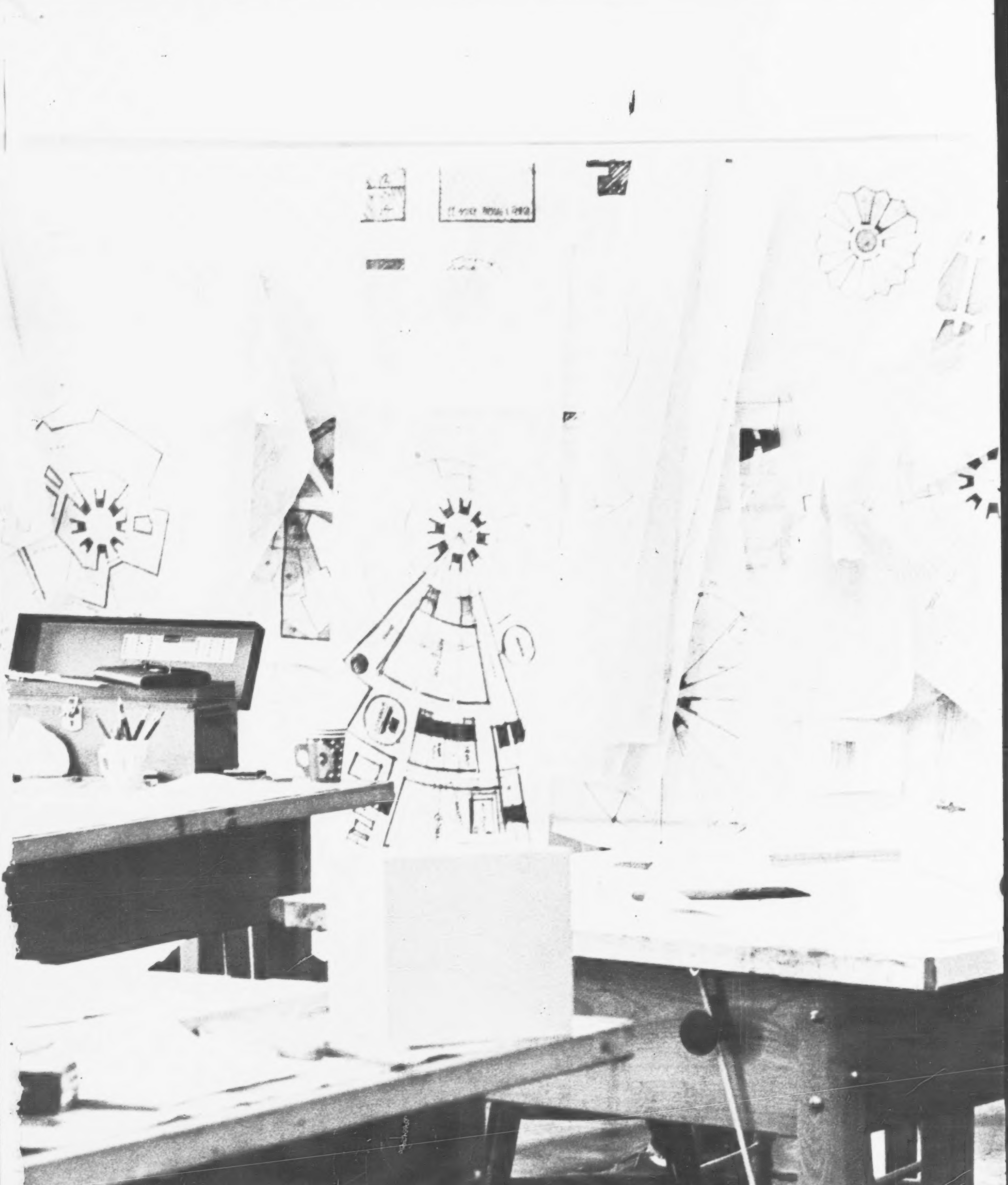

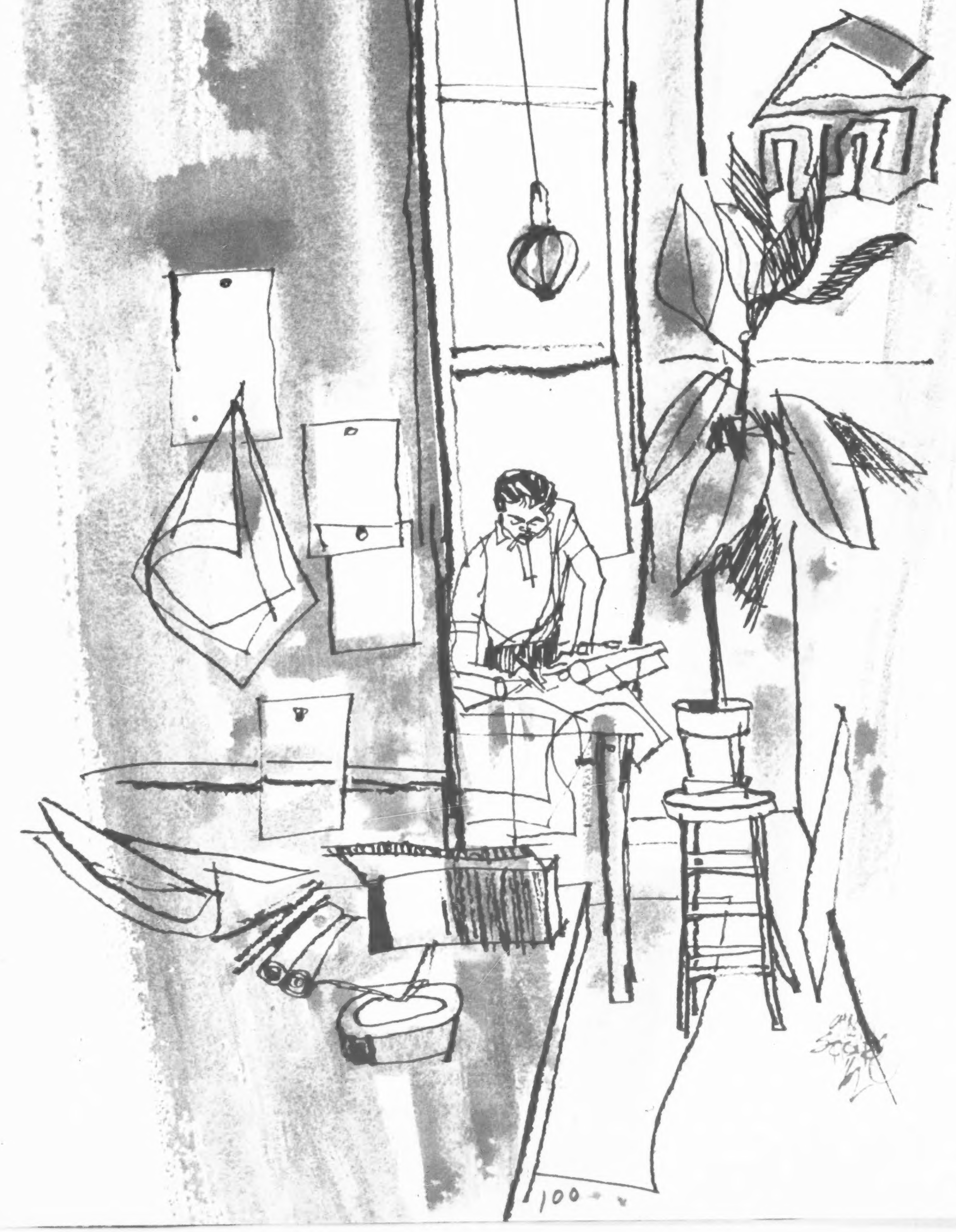

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Section I

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DESIGNS

COMMUNITY COLLEGES